Ithkuil: A Philosophical Design for a Hypothetical Language

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Introduction

These webpages present the grammar of an artificially constructed human language, **Ithkuil**. It has been designed with the following goals in mind:

1. The findings of cognitive science and cognitive linguistics since the 1980s show that human cognition gives rise to and processes far more information than is overtly expressed by natural human languages. Theoretically, it should be possible to design a human-usable language that overtly expresses more (or "deeper") levels/aspects of human cognition than are found in natural human languages.

2. Natural human languages are notorious for their semantic ambiguity, polysemy (multiple meanings for a given word), semantic vagueness, inexactitude, illogic, redundancy, and overall arbitrariness. Theoretically, it should be possible to design the language to minimize these various characteristics in favor of greater semantic precision, exactitude, and specification of a speaker's cognitive intent.

3. The above two goals would seemingly demand that the resulting language be long-winded, since individual words of the language (or at least any sentence as a whole) would have to convey much more morpho-semantic content than their natural language counterparts. Nevertheless, it should theoretically be possible to accomplish the above two goals while achieving relatively concise morpho-phonological forms for words. In other words, to be able to pack a lot of meaning and information into a relatively small number of syllables.

Ithkuil represents the culmination of my attempts over a period of thirty years or so to achieve the above goals. It should be noted that Ithkuil is NOT intended to function like a "natural" human language. Ithkuil exists as an exercise in exploring how human languages *could* function, not how human languages *do* function.

How the Language Works

Ithkuil's ability to express extensive cognitive detail in a concise manner is possible due to the design of the grammar, essentially a matrix of grammatical concepts and structures designed for compactness, cross-functionality and reusability. This matrix-like grammar is combined with a vocabulary/lexicon of semantic stems which (1) are capable of a high degree of flexibility and synergism within that matrix, (2) have been completely reconceptualized from the cognitive level up regardless of their correspondence to actual word roots and grammatical categories in existing languages, and (3) reflect the inherent dependencies and interrelationships between one semantic concept and another. Therefore, the morphemes of the language (i.e., word-roots, suffixes, prefixes, grammatical categories, etc.) are as phonetically brief as possible, function in multiple roles with one another, and correspond more closely to human cognitive categories than in natural languages. In this fashion, a limited number of sounds and word-roots can be made to generate a vast array of variations and derivations corresponding to and even surpassing all of the grammatical and semantic functions of the usual stock of words, phrases, and idiomatic constructions in natural languages.

Additionally, the particular grammatical categories of the language, combined with a systematic and hierarchical derivational morphology, allow for extreme transparency and flexibility in:

- gestalt conceptualization
- conveying the evidential basis for an utterance
- conveying the cognitive intent of an utterance
- objective vs. subjective descriptions of objects, events, and phenomena
- descriptions of the holistic vs. discrete componential structure of objects, situations, and phenomena
- mechanistic vs. synergistic interpretations of objects, events, and phenomena
- the causal dynamics of complex states, acts, events
- describing spatio-temporal phenomena

As an example of the morphological richness and efficiency possible in this language, examine the following Ithkuil sentence, comparing it to its literal English translation:

Tram-mļöi hhâsmařpţuktôx.

TRANSLATION:
'*On the contrary, I think it may turn out that this rugged mountain range trails off at some point.*'

NOTE: See Phonology, Section 1.2 on how to pronounce the Romanized orthography used to transliterate the Ithkuil characters.

The reader may well wonder why it takes a 19-word sentence in English to translate a two-word Ithkuil sentence. One might assume the sentence "cheats" in that the two Ithkuil words simply have innately intricate and specialized meanings. While it is true that the first word, **tram-mļöi**, translates as '*on the contrary, it may turn out at some point (that...)*,' and the second word, **hhâsmařpţuktôx**, means '*I have a feeling this unevenly high range of mountains trails off*,' it would be quite erroneous to conclude that these are simply autonomous words one might theoretically find in an Ithkuil dictionary. Indeed, the only part of the sentence that represents any sort of "root" word is **-âsm-**, a stem more or less meaning 'hill' or 'upland.' The remainder of the sentence is made up entirely of morphological, not lexical components, i.e., prefixes, suffixes, infixes, vowel permutations, shifts in stress and tone, etc. For example, the first word, **tram-mļöi**, has three parts to it as shown below:

1. **tr(a)-** = an affix indicating a rebuttal to an allegation, translatable as *'on the contrary...'*

2. **m-mļ-** = an infix which conveys both aspectual information translatable as *'it turns out (to be) that'* or *'it is revealed that,'* plus subjunctive mood, translatable as *'(it) may (be that)...'*

3. **-öi** = an aspectual suffix translatable as *‘at some point’* or *‘somewhere along the way’*

The second word, **hhâsmařpţuktôx**, breaks down morphologically as follows:

1. **hh-** = an affix indicating a conclusion based on the speaker’s intuition, translatable as *‘I have a feeling (that)...’*
2. **-âsm(a)-** = a stem meaning ‘hill, upland,’ in turn derived from the root **-sm-** indicating the level of a landscape
3. **-řpţ-** = an affix indicating (1) that the stem is to be re-interpreted as comprising a composite entity of non-identical members consolidated together into a single segmented whole (i.e., *‘hill’* becomes *‘uneven range of hills’*), and (2) that the entity displays depletion (i.e., ‘trailing off’ or ‘petering out’)
4. **-ukt-** = a demonstrative suffix translatable as *‘this’* (= ‘the one in question’ or ‘the one at hand’)
5. **-ôx** = a suffix indicating that the stem is to be interpreted as being very large in size, and furthermore, that the increase in size creates a new gestalt entity, i.e., not simply a ‘very large hill or upland’ but rather a *‘mountain’*
6. stress on penultimate (i.e., second-from-last) syllable = provides partial information on how the stem specifically derives from its semantic root
7. falling tone (unmarked) = statement reflects an end-in-itself rather than a goal-oriented situation

In addition to its morphology, Ithkuil is different from other languages in the way its lexicon (stock of word-roots) has been created as well as in the principles underlying its lexico-semantics (the relationship between words and meaning). In natural languages, the choice as to what mental concepts and categories will be overtly reflected as word-roots and stems is arbitrary and unsystematic (while in most invented languages, the lexicon is by and large consciously or sub-consciously patterned after that of natural languages). While it is true that virtually all languages reflect certain basic universals of word choice (e.g., all have words for *sun, moon, speak, mother, father, laugh, I, you, one, two, water, blood, black, white, hot, cold*, etc.), the manner in which these words are created is haphazard and with little regard for basic conceptual interrelationships. The result, in most cases, is a plethora of separate, distinct word roots which bear no morpho-phonological, or morpho-semantic relation to one another (i.e., the patterns of sounds used to create particular words are unsystematic and independent for each word-root regardless of whether those word-roots are semantically or cognitively related to one another). Ithkuil word-roots have been created in a more efficient and systematic manner, with a recognition that the interrelatedness between what are large sets of discrete words in other languages can be formalized and systematized into a vast array or matrix of derivational rules, the result being a drastic reduction in the number of basic word-roots, which in turn allows all individual stems to be extremely compact phonologically-speaking.

For example, consider the following series of English words: *see, sight, vision, glimpse, stare, gawk, view, panorama, look, eye, glance, visualize*. Note how each of these is a separate, autonomous word despite the fact that it shares a single underlying semantic concept with the others (a concept which we can conveniently refer to as SIGHT/VISION), each representing a mere manipulation of either durational aspect, situational perspective, or manner of participation relating to that underlying concept. What is more, these manipulations are, by and large, haphazardly applied, vague, subjective, and particular to the specific underlying concept (i.e., the aspectual/perspectival manipulations applied to SIGHT/VISION do not parallel those manipulations applied to the concept TRANSFERENCE OF POSSESSION by which we derive the series *give, take, receive, steal, donate, lend, borrow, send*, etc.).

In Ithkuil, it is the seminal underlying concept which is lexified into a word-root which then undergoes a series of regular, predictable, and universally applicable modifications at the morphological (i.e., grammatical) level to generate new words that, in some cases, parallel such series of English words, but in most cases, far exceed the dynamism and range of such English word series.

Another principle underlying the formation of words in Ithkuil is **complementarity**. Western thought and language generally reflect Aristotelian logic in the way they conceptualize the world and the interrelationships between discrete entities in that world. Ithkuil, on the other hand, views the world as being based on complementary principles, where, instead of discrete independence between related entities, such concepts are seen as complementary aspects of a single holistic entity. Such complementarity is in turn reflected in the derivation of word-roots. By “complementarity” is meant that the manifestation of a concept appears in any given context as either one sort of entity or another, but never both simultaneously; yet, neither manifestation can be considered to be a discrete whole without the existence of the other. A simple illustration of complementarity is the flip of a coin: the coin can only land on one side or the other, yet without both sides being part of the coin, any given coin toss has no meaning or contextual relevance no matter which side is face-up.

For example, in Western languages, words such as *male*, *night*, *limb*, *sit*, and *happen* are all autonomous words, linguistically representing what are inherently considered to be basic mental concepts or semantic primitives. However, in Ithkuil, none of these words is considered to be a semantic primitive. Instead, they are seen to be parts of greater, more holistic semantic concepts, existing in complementary relationship to another part, the two together making up the whole.

Thus, Ithkuil lexical structure recognizes that the word *male* has no meaning in and of itself without an implicit recognition of its complementary partner, *female*, the two words mutually deriving from a more basic, holistic concept, translatable into English as *living being*. Similarly, the word *night(time)* derives along with its complement *day(time)* from the underlying concept translatable as *day* (24-hour period), while *limb*, along with its complement *trunk* or *torso*, derives from the stem *(corporeal) body*.

Actions, too, are not exempt from this principle of complementarity, an example being the relationship between *sit* and *seat*; one has no meaning without an implicit and joint partnership with the other, i.e., one cannot sit unless one sits upon something, and whatever one sits upon automatically functions as a seat. We see the awkward attempt of English to convey these jointly dependent but mutually exclusive perspectives when comparing the sentences *Please sit down* and *Please be seated*. Another example involves the word *happen* or *occur*, which Ithkuil recognizes as having no real meaning without the attendant implication of *consequence* or *result*, the two being complementary components of a holistic concept roughly translatable as *event* or *situation*.

The Ithkuil word for *hole* illustrates another instance of complementarity. Holes can be looked at from two different, but interrelated perspectives: either as an opening connecting two different spaces (or access point to a previously unavailable space, i.e., a pit), or as a discontinuity in the surface or structural integrity of the dividing entity separating the two realms. In other words, one can focus on the potential function or consequences of the hole, or on the structural nature of the hole. Either of these two perspectives represents a legitimate, but complementary way to consider a hole or puncture. Thus, the Ithkuil word would have two derivative roots each indicating one of these two perspectives. One such root would be used when saying *There’s a hole in your shirt*, while the other would be used when saying *She saw me through a hole in the fence*.

Ithkuil recognizes that such complementarity exists for virtually any concept, in fact that it is one of the foundational principles of the universe itself. No beam of light can be spoken of without implicit recognition of its source. No signal can be described without accounting for the signaling device. Indeed, in Ithkuil no river is without its channel, no surface without its firmament, no message without its medium, no sense impression without its sense faculty, no contents without their container, no occurrence without its consequence, no memory without its present effect, no plan without its purpose, no music without its playing, no relief without prerequisite deprivation, no pleasure without its absence, no motion without space in which to move.

Other principles underlying Ithkuil word-derivation include the interrelated principles of fuzzy logic, prototype theory, and radial categorization. Incorporation of these principles into the architecture for word-formation allows roots to be grouped into various types of affiliated sets, each of which then functions as a conceptual gestalt, the individual members of which being marked as having varying degrees and kinds of relatedness or similarity to a hypothetical prototype member or archetype. Thus, Ithkuil is able to systematically derive words such as *crowd, mob, group, troop, club, association, assembly,* and *gathering* all from the single root-word *person*. Similarly, words such as *grove, orchard, forest, woods, jungle*, and *copse* can all be derived from the single root-word *tree*.

As one last example exemplifying the dynamism and conciseness of Ithkuil lexico-semantics, consider the following list of English words and phrases: *drenched, wet, damp, moist, near-dry, dry, parched*. Rather than provide separate autonomous words for these concepts, Ithkuil recognizes that these terms all indicate relative degrees of moisture along a continuous range. Such continua would be addressed by a single root whose meaning more or less corresponds to [DEGREE OF] MOISTURE to which an array of simple suffixes would be added to specify the particular degree along that range, all the way from *bone dry* (or *parched*) through *drenched* to *saturated*. All such phenomena which Western languages tend to semantically delineate into binary oppositions (e.g., *hard/soft, light/dark, shallow/deep*, etc.) are recognized and lexified in Ithkuil as single roots which then systematically use suffixes to specify the particular degree along a continuous range.

The above paragraphs illustrate how Ithkuil is able to capture and systematically present at the morphological level what other languages accomplish haphazardly at the lexical level. By systematically finding and structuring the covert dependencies and interrelationships between what are disparate words in other languages, the hundreds of thousands of words in a language like English are drastically reduced down to the approximately 3600 word-roots of Ithkuil. This is morpho-lexical efficiency on a grand scale. Nevertheless, by means of the matrix-like morphological scheme previously described, each of these roots can in turn generate thousands of permutations to convey complex and subtle semantic distinctions and operations which dwarf the capacity of existing languages to convey without resorting to cumbersome paraphrase. This is lexico-semantic and morpho-semantic efficiency on an equally grand scale. Such a synergistic design for grammar lends a dynamism that allows the Ithkuil language to describe reality to a minute level of detail and exactitude despite a limited number of word-roots. This dynamism is visible throughout this work, but is discussed in systematic detail in Chapter 10: Lexico-Semantics.

Addressing the Vagueness Inherent in Natural Languages

To further illustrate the cognitive depth at which Ithkuil operates, consider one of the most pervasive aspects of natural human languages: semantic vagueness. For example, consider the following four English sentences:

(a) *The boy rolled down the hill.*
(b) *Maybe she just stopped smoking.*
(c) *Joe didn't win the lottery yesterday.*
(d) *There is a dog on my porch.*

In examining these four sentences most native English speakers would deny that any vagueness exists. This is because the vagueness does not exist in terms of the overt meanings of the words themselves. Rather, the vagueness lies at the nearly subconscious level of their grammatical (or syntactical) relations and cognitive intent. For example, in sentence (a) we have no idea whether the boy chose to roll himself down the hill or whether he was pushed against his will. (In formal linguistic terms we would say it is unknown whether the semantic role of the subject 'boy' is as *agent* or *patient*.) And yet knowing which scenario is correct is crucial to understanding the speaker's intent in describing the action.

Imagine sentence (b) *Maybe she just stopped smoking* being spoken as an answer to the question 'Why does she seem so irritable?' In interpreting sentence (b), we have no idea whether the subject is indeed a smoker or not; i.e., is the speaker offering this speculation because he/she knows the subject to be a smoker, or as mere conjecture without knowledge one way or the other whether the subject smokes or not?

Sentence (c) *Joe didn't win the lottery yesterday* illustrates four-way ambiguity. Joe's failure to win the lottery could be either because: the speaker knows Joe didn't play; because the speaker knows Joe did play but lost; because the speaker doesn't know whether Joe played or not and is simply voicing a conjecture; or because the statement is an inference based on some indirect clue (e.g., since Joe showed up for work today, he must not have won the lottery).

And while sentence (d) *There is a dog on my porch s*eems on its surface to be the most straightforward of the four, is the intent of the speaker to simply describe and identify the participants to a scene, or does she wish to convey the idea that the scene has personal significance to her, e.g., because she has a phobia of dogs or has been waiting for a long-lost pet dog to return home? In other words, the sentence itself does not convey the intent behind the utterance, only the static description of the scene.

In all four instances, such vagueness exists unless and until the audience can ascertain information from the surrounding context of other sentences. This shows that, despite the fact that all four sentences are grammatically well-formed English sentences whose words in and of themselves are unambiguous, their grammar alone is insufficient to convey the cognitive information necessary to fully comprehend the intent of the speaker's utterance. This failure of grammar to inherently convey the requisite information necessary to understand a speaker's cognitive intent is a functional pitfall of human language in general which Ithkuil grammar has been designed to avoid. The Ithkuil equivalents to the above four sentences would mandatorily convey all of the "missing" information noted above without requiring any extra words not corresponding to the English originals. The grammatical elements of the words themselves (word-selection, declensions, conjugations, prefixes, suffixes, etc.) would convey all the elements mentioned.

Similar examples can be given to show the extent to which natural languages such as English must often resort to idiomatic expressions, metaphor, paraphrase, circumlocution and "supra-segmental" phenomena (e.g., changing the pitch of one's voice) in their attempts to convey a speaker's intended meaning. Ithkuil grammar has been designed to overtly and unambiguously reflect the intention of a speaker with a minimum of such phenomena.

Comparison to Other Constructed Languages

Those readers familiar with the history of artificial language construction might think this endeavor belated or unnecessary, in that logical languages such as James Cooke Brown's renowned Loglan (or its popular derivative, Lojban) already exist. This serves to illustrate exactly what distinguishes Ithkuil from such previous attempts. Loglan was published in the 1950s as a spoken/written language based on symbolic logic (formally known as the first-order predicate calculus), an algorithmic system of symbol manipulation devised by mathematicians and logicians. As a result, one might think that such a language is the most capable means of achieving logical, unambiguous linguistic communication. However, Loglan and its derivatives are merely sophisticated tools for symbol manipulation, i.e., the levels of language known as morphology and syntax. It is not within the scope of such languages to address any reorganization of the semantic realm. This means that symbolic logic simply manipulates arguments which are input into the system, they do not analyze the origin of those arguments in terms of meaning, nor are they capable of analyzing or formalizing the structure of the cognitive or semantic realm of the human mind in terms of how meaning itself is assigned to arguments. (Indeed, Lojban derives its roots via statistical "sampling" of the most frequent roots in the six most spoken natural languages, a method virtually guaranteed to carry over into the Lojban lexicon all of the lexico-semantic inefficiencies previously described.) By not addressing these components of language, Loglan and similar efforts fail to address the inconsistencies and inefficiency inherent in language at the lexico-semantic level. Ithkuil has been designed to systematically address this issue.

Other readers might think of international languages (or "interlanguages") such as Esperanto, Interlingua, or Ido, as being logical and efficient representations of language. However, these languages are merely simplified, regularized amalgamations of existing languages (usually Indo-European), designed for ease of learning. While addressing many overt irregularities, inconsistencies, and redundancies of language found at the morpho-phonological and morpho-syntactic levels, they do little to address the problems found within the other components of language, especially the lexico-semantic. For example, while Esperanto admirably employs systematic rules for word derivation as *knabo* 'boy' versus *knabino* 'girl,' it preserves the basic lexico-semantic categorization scheme of Indo-European languages in general, rather than seeking opportunities to expand such word derivation schemes into multidimensional arrays as is done in Ithkuil.

All in all, neither logical languages such as Loglan nor interlanguages such as Esperanto, are designed specifically to achieve the purpose of cognitive exactness and conciseness of communication which is the goal of Ithkuil. Actually, Ithkuil might more readily be compared with the analytical language of John Wilkins of the Royal Society of London, published in 1668, in which he divided the realm of human conception into forty categories, each containing a hierarchy of subcategories and sub-subcategories, each in turn systematically represented in the phonological structure of an individual word. While unworkable in terms of specifics, Wilkins' underlying principles are similar in a simplistic way to some of the abstract derivational principles employed in Ithkuil lexico-morphology and lexico-semantics. Another comparable predecessor in a simplistic sense is the musical language, Solresol, created by Jean François Sudre and published in 1866.

A Brief History of the Language's Development

The design of Ithkuil has slowly and painstakingly evolved from my early attempts as a teenager (following my introduction to the Sapir-Whorf hypothesis and Charles Fillmore's seminal 1968 article on case grammar) to explore beyond the boundaries of Western Indo-European languages to a complex, intricate array of interwoven grammatical concepts, many of which are wholly of my own creation, others of which have been inspired by such obscure linguistic sources as the morpho-phonology of Abkhaz verb complexes, the moods of verbs in certain American Indian languages, the aspectual system of Niger-Kordofanian languages, the nominal case systems of Basque and the Dagestanian languages, the enclitic system of Wakashan languages, the positional orientation systems of Tzeltal and Guugu Yimidhirr, the Semitic triliteral root morphology, and the hearsay and possessive categories of Suzette Elgin's Láadan language, not to mention ideas inspired by countless hours studying texts in theoretical linguistics, cognitive grammar, psycholinguistics, language acquisition, linguistic relativity, semantics, semiotics, philosophy, fuzzy set theory, and even quantum physics. The writings of the American cognitive linguists George Lakoff, Ronald Langacker, Gilles Fauconnier, and Len Talmy were particularly influential on Ithkuil's design.

The Ithkuil writing system likewise derives from both original and inspired sources: it employs a unique "morpho-phonemic" principle of my own invention, its logical design borrows from the mutational principles underlying the Ethiopic and Brahmi scripts, and its aesthetic visual design bears a superficial resemblance to Hebrew square script and the various Klingon fonts.

The first version of the Ithkuil was originally posted to the Internet in early 2004. A second, alternative version of the language called Ilaksh was posted during mid-2007, designed specifically to address the many requests for a version of the language with a simpler phonology (sound system). During the course of modifying the original version of Ithkuil into Ilaksh, I realized there were many aspects of Ilaksh design that could be incorporated back into Ithkuil without the constraints of Ilaksh on the number of consonants and vowels. This would (hopefully) allow the language to be more euphonic to the ear while maintaining its morpho-phonological conciseness. Additionally, hindsight has caused me to re-think a few fine points of the grammar, which this latest design allows me to incorporate into the language.

Introduced in July 2011, this third incarnation of the language (which shall retain the name "Ithkuil" out of convenience and continuity with the original version), reflects these ideas and now constitutes what I consider to be the definitive (or "official") version of the language. The name of the language is an anglicized form of the word **iţkuîl**, which means more or less *"hypothetical representation of a language"* in the original version of Ithkuil.

About the Grammar Presentation

This website provides a systematic presentation of the grammar of the language. In addition to a description of the various components of the grammar, the reader will find example phrases or sentences illustrating those components. The navigational links at the top and bottom of this page lead to chapters on the major grammatical components of the language and should be preferably read in sequence, as each chapter is cumulative and assumes knowledge of the preceding. While this grammar assumes only a basic knowledge of linguistic concepts, it will be helpful to briefly familiarize the reader with the hierarchical/schematic structure of human language in general, as the organization of this grammar is somewhat based around this structure. The analysis of human language can be organized into the following hierarchical schema of primary concepts:

- **Phonology**: The manner in which vocally articulated sound is structured for use within a language; this is the basic realm of the acoustic sounds produced by the lungs, vocal cords, tongue, and lips, i.e., consonants, vowels, volume, pitch, tone, stress, etc.
- **Morphology**: The grammatical rules, structures, categories and functions which can be manipulated to form words and the component phrases of sentences; this is the realm of prefixes, suffixes, word-roots, and conceptual categories like tense, singular vs. plural, moods, active vs. passive voice, etc.
- **Syntax**: The rules governing how words and phrases can be combined into grammatically acceptable sentences.
- **Semantics**: The realm of meaning; what the words, phrases, and syntactical structures of the language represent in terms of meaning.
- **Lexicon**: The list of word-roots within a language, i.e., the vocabulary of the language.
- **Pragmatics and Discourse Rules**: The analysis of how language is actually used in real-world situations as determined by cultural and context-driven rules; the realm of style, rhetoric, formal versus informal language, slang, etc., outside the realm of grammar. Because this is a formal grammar for a hypothetical language (i.e., it has no "real world" linguistic context), pragmatics and discourse rules will not be covered.

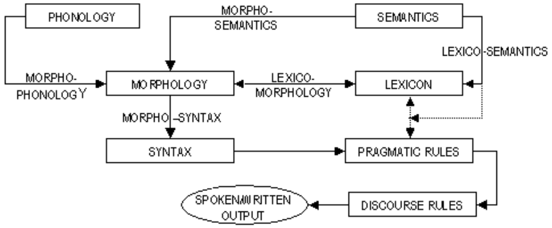
The above components of language in turn operate in an interrelated fashion, combining to designate several additional or secondary levels of analysis. For example:

- **Morpho-phonology**: The interrelationship between phonology and morphology, i.e., the manner in which the sounds of the language are manipulated into structures that can contain meaning. For example it is morpho-phonology that explains why different word-endings signify concepts such as masculine or feminine in Spanish.
- **Morpho-syntax**: The interrelationship between morphology and syntax, i.e., how the grammatical structures within words impact the overall structure of a sentence, as illustrated by the relationship

between the sentences *It is undeliverable* versus *It cannot be delivered*.

- **Lexico-Morphology**: The interrelationship between morphology and the lexicon, i.e., the structure of word-roots and how they interact with other morphological categories, as illustrated by the concept of “irregular” verbs, e.g., ‘go’ + PAST = ‘went.’
- **Lexico-Semantics**: The interrelationship between the lexicon and semantics, i.e. between words and their meaning; what mental concepts are selected by a language to be instantiated as word-roots and the cognitive processes behind the selection criteria.

The interrelationships between these components can be illustrated by the following diagram.



Each example comprises an Ithkuil word, phrase, or sentence written in native Ithkuil script, accompanied by a Romanized transliteration, an English translation (sometimes divided into a “natural” versus literal translation), and a morphological analysis. The morphological analysis is presented serially, morpheme-by-morpheme, using three-letter abbreviations or labels for Ithkuil morphological categories. These labels are presented within the body of the work in conjunction with the explanation of each morphological category. A list of these abbreviations is also available on the main naviagtional menu at the top and bottom of each page of the site.

This work is not meant as a primer or means of self-instruction in speaking the language, a task beyond even its creator, given that Ithkuil may be perhaps the most grammatically complex language ever devised. Simplicity was not my purpose, but rather bridging the gap between extreme morphological dynamism, the overt reflection of human cognitive processes via language, and extreme morpho-semantic economy and efficiency. I believe I have achieved a result which is close to the ideal I sought. I leave it to the reader to explore that result.

My work on Ithkuil is dedicated to my brother Paul, in fond remembrance of *Kccoj*, *Mbozo*, and all the fun times we had growing up playing with language and linguistics. *Aniamtrexu tanskbitero!*

And I dedicate this new 2011 version of the language to Ms. Alla Vishneva, who teaches students about Ithkuil in Kyiv, Ukraine, and to whom my work is as important as it is to me. *Дякую, Алла. Ти маєш рацію!*

—John Quijada
July, 2011

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Chapter 1: Phonology

1.1 Note On Orthography and Transliteration
1.2 Phonemic Inventory
1.3 Phonological Processes and Rules
1.4 Phonotactic Rules

The phonology of a language essentially refers to its sound system, i.e., its systematic employment of consonants, vowels, and other vocalized phenomena such as pitch, stress (or accent), and tone in order to physically convey the meaningful content of the language itself. The phonological system of Ithkuil is detailed in the sections below.

1.1 NOTE ON ORTHOGRAPHY AND TRANSLITERATION

The native script used to represent Ithkuil is both alien and complex. It is explained in Chapter 11. As a result of this complexity, a system of romanization is employed throughout this grammar to allow the reader to recognize the general phonetic structure of Ithkuil words. Due to the inadequacies of the Roman alphabet in transliterating some of the phonemes (meaningful sounds) in Ithkuil, various diacritics are necessary for a phonemic Romanization system. Additionally, there are two digraphs, **dh** and **xh**, which represent single sounds.

1.2 PHONEMIC INVENTORY

Ithkuil has 45 consonants and 13 vowels. These phonemes are illustrated by place and manner of articulation in Table No. 1 below using a special romanized orthography.

Tables 1(a) and 1(b): Phonemic Inventory

Table 1(a): Consonantal Inventory

	PLOSIVES				AFFRICATES				Fricatives		Nasals	Taps/ Trills	Liquids	Approximants
	plain		aspirated	ejective	plain		aspirated	ejective						
	un-voiced	+voice	un-voiced	un-voiced	un-voiced	+voice	un-voiced	un-voiced	un-voiced	+voice	+voice	+voice	+voice	+voice
BILABIAL	**p**	**b**	**p**^{h}	**p’**	_	_	_	_	_	_	**m**	_	_	_
LABIO-VELAR	_	_	_	_	_	_	_	_	_	_	_	_	_	**w**
LABIO-DENTAL	_	_	_	_	_	_	_	_	**f**	**v**	_	_	_	_
DENTAL	**t**	**d**	**t**^{h}	**t’**	_	_	_	_	**ţ**	**dh**	**n**	_	_	_
ALVEOLAR	_	_	_	_	**c**	**ż**	**c**^{h}	**c’**	**s**	**z**	_	_	_	_
ALVEOLAR-RETROFLEX	_	_	_	_	_	_	_	_	_	_	_	**r**	_	_
POST-ALVEOLAR	_	_	_	_	**č**	**j**	**č**^{h}	**č’**	**š**	**ž**	_	_	_	_
PALATAL	_	_	_	_	_	_	_	_	**ç**	_	_	_	_	**y**
VELAR	**k**	**g**	**k**^{h}	**k’**	_	_	_	_	**x**	_	**ň**	_	_	_
UVULAR	**q**	_	**q**^{h}	**q’**	_	_	_	_	**xh**	_	_	_	_	**ř**
GLOTTAL	**’**	_	_	_	_	_	_	_	**h**	_	_	_	_	_
LATERAL	_	_	_	_	_	_	_	_	**ļ**	_	_	_	**l**	_

Table 1(b): Vocalic Inventory

_	FRONT		CENTRAL		BACK	
_	unrounded	rounded	unrounded	rounded	unrounded	rounded
High	**î**	**(ü)**	_	**ü**	_	**û**
Mid-High	**i**	_	_	_	_	**u**
Mid	**ê**	**ö**	**ë**	_	_	**ô**
Mid-Low	**e**		_	_	_	**o**
Low	_	_	**a**	_	**â**	_

1.2.1 Pronunciation of Consonants

The following are approximate descriptions of the consonantal sounds of Ithkuil. In addition to these descriptions, the corresponding symbol of the International Phonetic Alphabet (IPA) is provided in brackets, as well as their X-SAMPA equivalents for those readers who may be familiar with these phonetic representation systems.

b	As in English. A voiced unaspirated bilabial plosive. IPA and X-SAMPA [**b**].
c	As in English *bi**ts***. A voiceless unaspirated lamino-alveolar affricate. IPA [**ts**]. X-SAMPA [**t_s**].
č	As in English ***chin*** but with neither the lip-rounding nor the aspiration (accompanying puff of air) that characterizes this sound in English. A voiceless unaspirated lamino-postalveolar dorso-palatal non-labialized sibilant affricate; IPA [**ʧ**]. X-SAMPA [**t_S**].
ç	Like the initial sound in English ***h**uman*, ***h**uge*, ***h**ue*, or the sound in German *i**ch***. A voiceless dorso-palatal non-grooved (slit) fricative; IPA [**ç**]. X-SAMPA [**C**].
d	Similar to English, but made with the tip of the tongue against the back of the upper teeth, not the alveolar ridge (the gum ridge behind the upper teeth) as in English. An voiced unaspirated apico-dental plosive; IPA [**d̪**]. X-SAMPA [**d_d**].
dh	As in English ***th**is*, *ba**th**e*, *wea**th**er*. A voiced apico-interdental fricative; IPA [**ð**]. X-SAMPA [**D**].
f	As in English. A voiceless labio-dental fricative; IPA and X-SAMPA [**f**].
g	Always as in English ***g**a**g***; never as in *ginger*. A voiced unaspirated dorso-velar plosive; IPA and X-SAMPA

[**g**].

h	As in English ***hall***. Note that, unlike English, this sound can occur at the end of a syllable in Ithkuil. A voiceless bi-glottal fricative; IPA and X-SAMPA [**h**].
j	As in English ***judge*** but without the lip-rounding that accompanies the English sound. A voiced unaspirated non-labialized lamino-postalveolar dorso-palatal affricate; IPA [ʤ]. X-SAMPA [**d_Z**].
k	Similar to English ***k*** but without aspiration. Like the *k*-sound of the Romance languages, e.g., Spanish or Italian *casa*. A voiceless unaspirated dorso-velar plosive; IPA and X-SAMPA [**k**].
l	The "light" *l*-sound of the Romance languages, or as in British English ***leader***; not the "dark" (velarized) *l*-sound of American English ***lull***. A voiced apico-dental dorso-bilateral liquid continuant; IPA and X-SAMPA [**l**].
ļ	No English equivalent. The voiceless dorso-bilateral fricative as found in Welsh ***llan***. Can best be approximated by putting the tongue in position as if to say an *l*-sound, and while holding the position, make a forceful *h*-sound instead; IPA [ɬ]. X-SAMPA [**K**].
m	As in English. A voiced bilabial nasal continuant obstruent; IPA and X-SAMPA [**m**].
n	Similar to English, but made with the tip of the tongue on the back of the upper teeth as in the Romance languages, not the alveolar ridge as in English. A voiced apico-dental nasal continuant obstruent; IPA [**n̪**]. X-SAMPA [**n_d**].
ň	The English *ng*-sound as in ***song*** or *ringer*; NEVER as in ***finger***. A voiced dorso-velar nasal continuant obstruent;. IPA [**ŋ**]. X-SAMPA [**N**].
p	Similar to English, but without aspiration. As in the Romance languages. A voiceless unaspirated bilabial plosive; IPA and X-SAMPA [**p**].
q	No English equivalent. The voiceless dorso-uvular unaspirated plosive found in Arabic, Inuit and many American Indian and Caucasian languages. Similar to an unaspirated *k*-sound but made by pressing the tongue against the uvula (the little "punching bag" hanging at the back of the palate) as opposed to the soft palate. IPA and X-SAMPA [**q**].
r	This sound is a single flap of the tongue tip as in Spanish *caro* or *pero*. When geminated (doubled) it becomes a trill as in Spanish *carro* or *perro*. A voiced apico-alveolar retroflex flap/trill; IPA [ɾ], [**r**]. X-SAMPA [**4**], [**r**].
ř	No English equivalent. Like the throaty or "gargled" *r*-sound found in colloquial French and German. A voiced dorso-uvular approximant (non-trilled); IPA [ʁ]. X-SAMPA [**R**].
s	As in English *sister*. A voiceless lamino-alveolar grooved sibilant fricative; IPA and X-SAMPA [**s**].
š	As in English ***shoeshine*** but without the lip-rounding of the English sound. A voiceless non-labialized lamino-postalveolar dorso-palatal grooved sibilant fricative; IPA [ʃ]. X-SAMPA [**S**].
t	Similar to English but without aspiration and with the tongue-tip against the back of the upper teeth, not against the alveolar ridge. As in the Romance languages. A voiceless unaspirated apico-dental plosive; IPA [**t̪**]. X-SAMPA [**t_d**].
ţ	As in English ***thin***, ***bath***. A voiceless apico-interdental fricative; IPA [**θ**]. X-SAMPA [**T**].
v	As in English. A voiced labio-dental fricative; IPA and X-SAMPA [**v**].
w	As in English ***well***, *worry*. A voiced labio-velar (i.e., labialized dorso-velar) glide (or approximant); IPA and X-SAMPA [**w**].
x	No English equivalent. The smooth voiceless dorso-velar fricative found in Russian (spelled **х** in Cyrillic) and in Latin American (but not Castilian) Spanish **j**. Can be approximated by putting one's tongue in position as if to pronounce a *k*-sound, and while holding the tongue in this position, breathing an *h*-sound instead. IPA and X-SAMPA [**x**].
xh	No English equivalent. The rough voiceless dorso-uvular fricative (or trill) found in German ***ach***. Can be approximated by means of a dry gargle without vocal chord vibration. IPA [**χ**]. X-SAMPA [**X**].
y	As in English ***yet***, ***yam***. A voiced dorso-palatal glide (or approximant); IPA and X-SAMPA [**j**].
z	As in English *zoo*, *wizard*. A voiced lamino-alveolar grooved fricative; IPA and X-SAMPA [**z**].
ż	Like an English *d+z* sound, as in ***roads***, ***adze***. A voiced lamino-alveolar affricate; IPA [**dz**]. X-SAMPA [**d_z**].
ž	The voiced counterpart of **š** above. Similar to the sound in English *pleasure* or *leisure*, but without lip-rounding. A voiced lamino-alveolar dorso-palatal grooved sibilant fricative; IPA [ʒ]. X-SAMPA [**Z**].
'	This sound is the glottal stop heard between the two vowels in English o*h-oh* or as the sound heard in the word *fattening* as pronounced by most American English speakers. This sound is very common in other languages such as Hawaiian, Arabic, Hebrew, etc. A voiceless bi-glottal stop; IPA [ʔ].

1.2.1.1 Aspirated Consonants: The consonants **p**, **t**, **k**, **q**, **c** and **č** are all unaspirated, i.e., without the accompanying puff of air characteristic of English voiceless stops and affricates. In Ithkuil each of these has an aspirated counterpart, pronounced like the unaspirated version but with a distinct expulsion of air, more so than in English. These aspirated counterparts are written with a following superscript ***h***; thus: $\mathbf{p^h}$, $\mathbf{t^h}$, $\mathbf{k^h}$, $\mathbf{q^h}$, $\mathbf{c^h}$ and **č**$^{\mathbf{h}}$.

1.2.1.2 Ejective Consonants: The same six consonants immediately above also have ejective counterparts, which do not exist in any major Western language, but are found in languages such as Amharic, Georgian, most of the Caucasian languages, and many American Indian languages. Ejectives (also called glottalized consonants) are consonants accompanied by simultaneous closure and sudden release of the glottis (vocal chords), which gives the sound a distinct "popped" or explosive quality. Ejectives are indicated by an apostrophe following the consonant, thus: **p'**, **t'**, **k'**, **q'**, **c'** and **č'**.

1.2.1.3 Syllabic consonants. The consonants, **l**, **m**, **n**, **ň**, and **r** can be pronounced as full syllables in absence of a vowel. The phenomenon of syllabic consonants is fairly common and occurs in colloquial English expressions such as 'hmm' (as when pondering a thought), 'mm-hmm' (an expression of approval or agreement), as well as with the consonants *n* and *l* as in the second syllable of words like *button* and *little*. In Ithkuil, these four syllabic consonants can appear as word-initial syllables preceding a consonant as in **ntal**. However, they also occur in special geminate (i.e., doubled) clusters where the second "half" of the geminated cluster is pronounced as a separate syllable. These special dyssyllabic geminates are indicated by writing a hyphen between the two syllabic "halves," e.g., ***hom-m***, ***il-lui***, ***tiň-ňax***.

1.2.2 Pronunciation of Vowels

There are thirteen vowel phonemes, all of which are pure sounds, not glided into diphthongs as in English.

a	A low unrounded central vowel as in Spanish or Italian. IPA or X-SAMPA [**a**].
â	A low unrounded back vowel as in Western U.S. ***all***, or a conservative French pronunciation of ***pâte***. IPA [**ɑ**];
e	The mid-low unrounded front vowel of English *bet*, Italian *letto*, or French *être*. IPA [**ɛ**] or X-SAMPA [E]. When followed by a vowel other than **u**, it is pronounced like the vowel **ê** immediately below, only shorter.
ê	The mid unrounded front vowel of Spanish *este* or Italian *cadere* or French *déjà*, lengthened. IPA or X-SAMPA [**e:**]
i	The mid-high lax unrounded front vowel as in English *sit*, or German *sitzen*. IPA [**ɪ**] or X-SAMPA [**I**]. At the end of a word, or when followed by a vowel other than **u**, it is pronounced like the vowel **î** immediately below, only shorter.
î	the high tense rounded vowel of Spanish or Italian *libro*, or Fench *litre*, lengthened. IPA or X-SAMPA [**i:**]

o	The mid rounded back vowel of English *short* or Italian *otto*. IPA [ɔ] or X-SAMPA [O]. When followed by a vowel other than **i**, it is pronounced like the vowel **ô** immediately below, only shorter.
ô	The mid-low rounded back vowel in Spanish or Italian *cosa*, lengthened. IPA or X-SAMPA [**o:**]
u	The mid-high lax rounded back vowel of English *put* or *look* or German *putsch*. IPA [ʊ] or X-SAMPA [**U**]. At the end of a word, or when followed by a vowel other than **i**, it is pronounced like the vowel **û** immediately below, only shorter.
û	the high tense rounded back vowel of Spanish or Italian *puta* or *crudo*, lengthened. IPA or X-SAMPA [**u**:]
ë	The mid unrounded central vowel in American English *cut* or *nut*, IPA [ə] or X-SAMPA [@].
ö	This vowel may be pronounced either of two ways: (1) as the mid-low rounded front vowel of French *feu,* IPA [**ø**] or X-SAMPA [**2**]; or (2) as the mid rounded front vowel of French *neuf,* IPA [**œ**] or X-SAMPA [**9**].
ü	A high central rounded vowel, as found in Norwegian *hus* or the Highland Scottish pronunciation of English *book* or *good*; IPA [**ʉ**] or X-SAMPA [}]. This vowel may alternately be pronounced as the high rounded front vowel of French *du* or German *über*, IPA or X-SAMPA [**y**], if this is easier for the speaker.

1.2.2.1 Epenthetic Vowel Following a Glottal Stop. In Ithkuil words where a glottal stop (spelled **'**) is followed by a consonant (e.g., as in the words **ka'tal** or **morui'ss**), the glottal stop is usually followed by a very briefly pronounced vowel sound before the following consonant is pronounced. This vowel may be pronounced in either of two ways, whichever is easier for the speaker. The first is as the high central unrounded vowel of Russian быть, IPA [ɨ] or X-SAMPA [**1**]. The second way is to pronounce it as the high back unrounded vowel found in Turkish (spelled with an undotted **ı**), IPA [ɯ] or X-SAMPA [**M**]. Both of these vowels are extremely short in duration and may even be de-voiced if the following consonant is voiceless.

1.2.3 Diphthongs

An Ithkuil syllable may contain one diphthong (a combination of two vowels pronounced together as one syllable). All Ithkuil diphthongs are "falling" diphthongs, i.e., the first vowel of the diphthong receives the primary articulation while the second becomes semi-vocalic (sometimes referred to as semi-consonantal or an "off-glide"). There are 12 diphthongs in Ithkuil, described as follows:

ai	Pronounced as in Spanish or Italian; like English ***i*** in *white* or *ice*.
ei	As in Spanish or Italian; like English ***ai*** in *rain* or ***ei*** in *rein*.
ëi	No standard English equivalent; a combination of the vowel sound in American English *rut* + an English *y*-sound. Somewhat like a rural British dialectal pronunciation of the *i* in *ice*.
oi	As in Spanish or Italian; as in English ***oy*** in *boy* or *voice*.
öi	No English Equivalent. A combination of the Ithkuil vowel **ö** plus an English *y*-sound. Much like the French word ***oeil***.
ui	A combination of the Ithkuil vowel **u** [ʊ] + an English *y*-sound. The speaker should avoid allowing this diphthong to become a "rising" diphthong where the *u*-sound is reduced to a *w*- (the result sounding like English *wee*). This diphthong may also be pronounced as the high rounded back vowel /**u**/ + an English *y*-sound, as in Spanish or Italian.
au	As in Spanish or Italian; like English *ou* in ***l**o**u**d* or ***ow*** in *c**ow***.
eu	As in Spanish or Italian; no English equivalent. A combination of the Ithkuil vowel **e** + an English *w*-sound.
ëu	No standard English equivalent; a combination of the vowel sound in American English *rut* + an English *w*-sound. Somewhat like a rural British dialectal pronunciation of the word *oh!*
iu	No English equivalent; a combination of the Ithkuil vowel **i** (IPA /ɪ/) + an English *w*-sound. May also be pronounced as the high front unrounded vowel /i/ + an English *w*-sound, as in Portuguese *part**iu***.
ou	Like the *o* + *w*-glide of English ***road*** or ***mode***. Also as in Brazilian Portuguese ***roupa***.
öu	No English Equivalent. A combination of the Ithkuil vowel **ö** plus an English *w*-sound. Somewhat like an exaggerated upper class British pronunciation of the word *oh!*

All other combinations of vowels are dissyllabic, i.e., are pronounced as two separate syllables. Care should be taken to avoid collapsing the many two-vowel combinations beginning with **u-** and **i-** into "rising" diphthongs beginning with a *w*-sound or *y*-sound. This is especially important when the second vowel of these combinations receives the syllabic stress.

1.2.3.1 Separation of Diphthongs into Separate Syllables: When one of the above twelve diphthongs represent the Slot VIII **Vc** case infix (see Section 2.1.1 for an explanation), the diphthong may optionally be separated into two separate syllables in words with antepenultimate or preantepenultimate stress (see Section 1.3.3 below), in order to provide a sufficient number of syllables in the word for the stress rules to be applied. When diphthongs are broken up into separate syllables for this purpose, the second character of the diphthong (i.e., either **-i** or **-u**) carries a circumflex accent above it to show the syllabification. In such instances, this circumflex does not indicate a long vowel, but merely the separation of the syllables.

1.2.4 Orthographic Representation of Dissyllabic Vowel Conjuncts

Dissyllabic vowel conjuncts, wherever they might be confused with a diphthong, are written with a grave accent (`) over the second vowel to indicate it is a separate syllable (unless this second vowel is, in fact, the stressed syllable – see Section 1.3.3 below for rules on indicating stress). For example, diphthong **au** is distingished from dissyllabic conjunct **aù**.

1.2.5 Allophonic Distinctions

Allophonic distinctions are the phonetic variances in the pronunciation of a particular phoneme depending on the phonetic environment in which that phoneme occurs. These variances, known as allophones, while audible to a trained linguist, are often indistinguishable to lay native speakers of a given language, in that these allophonic variances do not change the meaning of a word and thus play no functional role in the language. As an example, compare the two *t*-sounds in the English words *top* and *stop*. The former is aspirated (i.e., accompanied by a distinct puff of air), while the latter is unaspirated, giving the two sounds a different phonetic quality. However, because consonant aspiration does not function phonemically in English, the difference in the two *t*-sounds is unnoticeable to most native speakers of English, even though it would be highly noticeable to speakers of languages where consonant aspiration is phonemically relevant (e.g., Hindi and many other Indic languages).

Although such allophonic distinctions are arbitrary within a given language, they are not random; rather, their patterns are completely regular and predictable for any given language (as is true for consonant aspiration in English). Failure to follow the rules for allophonic distinctions when learning a foreign language will result in the speaker having a noticeable "foreign accent" to native speakers of the language (as do most French, Italians, and Spanish-speakers when trying to pronounce English "top" without aspirating the initial *t*-sound, due to the lack of consonant aspiration in Romance languages.)

1.2.5.1 Consonantal Allophones. The significant allophonic distinctions for Ithkuil consonants are as follows:

dy	This consonant cluster may be pronounced either as it is spelled, or as the voiced dorso-palatal unaspirated plosive found in Hungarian and Czech where it is spelled *gy* and *d´* respectively. Sort of like a *g*+*y* sound as in English *bi**g** **y**ear* pronounced rapidly, with the *g*-sound pronounced with the tongue against the hard palate as opposed to the soft palate. IPA [ɟ]. X-SAMPA [**J**\].
hh	The geminated version of Ithkuil **h** is pronounced in either of two ways: (1) as a "bi-dental" fricative, in that the jaw is completely closed and the upper and lower teeth are in near-contact along their entire length; the resulting sound is somewhat similar in timbre to both a voiceless interdental fricative (as in English ***thin***) as well as the English *f*-sound, however there is absolutely no contact by the tongue with the teeth or gums when pronouncing this sound; no IPA equivalent; or (2) as the voiceless pharyngeal fricative found in Arabic (spelled ح)and in various Northwest and Northeast Caucasian languages. This second allophone should not be employed if the resulting pharyngealization distorts the timbre of the adjacent vowels to the extent that their place of articulation changes (e.g., the vowel **û** being made to sound like **ô**).

ly This consonant cluster may be pronounced either as it is spelled, or as the voiced palatal lateral liquid continuant found in Castillian Spanish *calle*, Portuguese *olhar*, or Italian *egli*. For English speakers, this can best be approximated by placing the tongue in the position to say the **y** in **y**es, and while keeping the tongue in that position flat against the hard palate, pronouncing an **l**-sound instead without touching the tip of the tongue to the alveolar ridge behind the front teeth. IPA [ʎ]. X-SAMPA [**L**].

ny This consonant cluster may be pronounced either as it is spelled, or as the voiced palatal nasal found in Spanish *año*, Italian *agnello*, Portuguese *caminho*, or French *champagne*. For English speakers, this can best be approximated by placing the tongue in the position to say the **y** in **y**es, and while keeping the tongue in that position flat against the hard palate, pronouncing an **n**-sound instead without touching the tip of the tongue to the alveolar ridge behind the front teeth. IPA [ɲ]. X-SAMPA [**J**].

ř In normal speech, this phoneme is pronounced as a voiced dorso-uvular approximant (non-trilled) continuant, similar to the throaty *r*-sound found in colloquial French and German, IPA [ʁ]. However, in emphatic articulation or hyper-enunciated speech, this sound becomes a voiced dorso-uvular trill, IPA [ʀ].

řx The combination of **ř** before **x** causes the **x** to be pronounced as a voicelss uvular fricative, as in German ***Bach*** or the Castilian pronunciation of Spanish **j**.

ty This consonant cluster may be pronounced either as it is spelled, or as a voiceless unaspirated dorso-palatal plosive, the unvoiced counterpart to **dy** above. Like a *k*-sound but unaspirated (i.e., without any accompanying puff of air) and produced farther forward in the mouth by pressing the tongue to the hard palate, not the soft palate as with English ***k***. The result should sound somewhat like a *k+y* as in *bac**ky**ard* when spoken rapidly. IPA and X-SAMPA [**c**].

bm, dn, km, kn, pm, tn

When in word-initial position, the first consonant of these conjuncts is pronounced with nasal rather than oral release. To achieve this, place the tongue and/or lips in position to pronounce the first consonant, initiate the airstream from the lungs to pronounce it, but instead of releasing the sound, and without moving the tongue or lips, pronounce the second nasal consonant instead.

hl, hm, hn, hň, hr, hw

Each of these consonant conjuncts, when word-initial, or syllable-initial following another consonant, are not pronounced as separate consonants, but rather as unvoiced counterparts to the liquid or nasal consonant that forms the second member of the conjunct. To approximate these sounds, place the mouth in the position to pronounce an Ithkuil **l**, **m**, **n**, **ň**, **r**, or **w**, and without moving the tongue or lips, breath a clear *h*-sound instead.

’ As previously described in Sec. 1.2.2.1, in Ithkuil words where a glottal stop is followed by a consonant (e.g., **ka’tal** or **morui’ss**), the glottal stop is usually followed by a very briefly pronounced epenthetic vowel sound before the following consonant is pronounced. This vowel may be pronounced in either of two ways, whichever is easier for the speaker. The first is as the high central unrounded vowel of Russian **быть**, IPA [ɨ] or X-SAMPA [**1**]. The second way is to pronounce it as the high back unrounded vowel found in Turkish (spelled with an undotted **i**), also found in Japanese as the pronunciation of the short vowel **u**, IPA [ɯ] or X-SAMPA [**M**]. Both of these vowels are extremely short in duration and may even be de-voiced if the following consonant is voiceless.

1.2.5.2 Vocalic Allophones. As previously stated in Section 1.2.2, the Ithkuil vowels **i** and **u** have two different pronunciations. Specifically, they are pronounced as the vowels in American English *sit* and *put* respectively if they appear by themselves, not adjacent to another vowel or not as part of a diphthong. However, when part of a dissyllabic vowel conjunct, their pronunciation is as follows:

For disyllabic vowel conjuncts beginning with the vowel **i-** (e.g., **ia**, **ie**, **io**, **iù**, etc.), the initial **i-** is pronounced as the high unrounded front vowel in Spanish or Italian *libro*, or German *siegen*. IPA or X-SAMPA [**i**].

For disyllabic vowel conjuncts where the second member is **i**, (e.g., **aì**, **uì**, **öì**, etc.), the **i** may be pronounced either as the lax vowel in English *sit* and German *sitzen* (IPA [ɪ], or as the high unrounded front vowel in Spanish or Italian *libro*, or German ***siegen***. IPA or X-SAMPA [**i**].

For disyllabic vowel conjuncts beginning with the vowel **u-** (e.g., **ua**, **ue**, **uo**, **uì**, etc.), the initial **u-** is pronounced as the high rounded back vowel in Spanish or Italian *puta* or *crudo*. IPA or X-SAMPA [**u**].

For disyllabic vowel conjuncts where the second member is **u**, (e.g., **aù**, **iù**, **öù**, etc.), the **u** may be pronounced either as the lax vowel in English *put* and German *putsch* (IPA [ʊ] or X-SAMPA [**U**], or as the high rounded back vowel in Spanish or Italian ***puta*** or *crudo*. IPA or X-SAMPA [**u**].

In word-final position the vowel **i**, when not part of a diphthong, is pronounced as the high unrounded front vowel in Spanish or Italian *libro*, or German ***siegen***. IPA or X-SAMPA [**i**]. Similarly, the vowel **u** in word-final position and not part of a diphthong, is pronounced as the high rounded back vowel in Spanish or Italian *puta* or *crudo*. IPA or X-SAMPA [**u**].

Additional vocalic allophones:

For disyllabic vowel conjuncts beginning with the vowel **e-** and the second vowel is other than **ì** or **ù** (i.e., **ea**, **eo**, **eö**), the initial **e-** is pronounced as the mid unrounded front vowel of Spanish ***este*** or Italian *cadere* or French *déjà*; IPA or X-SAMPA [**e**].

For disyllabic vowel conjuncts beginning with the vowel **o-** and the second vowel is other than **ì** or **ù** (i.e., **oa**, **oe**), the initial **o-** is pronounced as the mid-low rounded back vowel in Spanish or Italian *cosa*; IPA or X-SAMPA [**o**].

1.3 PHONOLOGICAL PROCESSES AND RULES

Besides the actual inventory of consonant and vowels, all languages have phonological processes which affect how those consonants or vowels are combined and phonetically articulated. Through these phonological processes, the possible number of word-forming syllables in the language is expanded. Ithkuil productively utilizes consonantal gemination, shifts in syllabic stress, and tone (pitch intonation) to achieve these ends.

1.3.1 Gemination

Gemination refers to the audible “doubling” in length of a particular sound, usually in reference to consonants. While gemination does not occur in English on true phonological grounds, it does occur on morpho-phonological grounds, as seen in the difference in pronunciation of the phrase ‘a natural’ versus ‘unnatural.’ There are many languages, however, where phonologically-based gemination is an intrinsic component of the phonology (e.g., Italian, Japanese, Finnish).

In Ithkuil, most consonants can be geminated. Also noteworthy is that gemination of certain consonants is allowed in both word-initial and word-final position. The following are the specific rules for consonant gemination:

1.3.1.1 Intervocalic Gemination. All consonants are capable of intervocalic gemination (i.e., when between two vowels) except for **y**, **w** and the glottal stop **’**.

1.3.1.2 Word-Initial and Word-Final Gemination. The following consonants, in addition to being capable of intervocalic gemination, are also capable of being geminated in both word-initial and word-final position: **c**, **ç**, **č**, **j**, **l**, **m**, **n**, **ň**, **r**, **ř**, **s**, **š**, **z**, **ż** and **ž**.

1.3.1.3 Pronunciation of Geminated Consonants. Consonants which are continuants (i.e., able to be sounded for an indefinite duration), specifically **ç**, **dh**, **f**, **l**, **m**, **n**, **r**, **ř**, **s**, **š**, **ţ**, **v**, **x**, **z**, and **ž**, are simply pronounced for twice as long in duration when geminated. Geminated **r** is pronounced as a rapid apico-alveolar trill like *rr* in Spanish or Italian.

The non-aspirated plosive consonants **b**, **d**, **g**, **k**, **p**, **q** and **t**, when geminated, are momentarily held, then released, much like the two *d*-sounds in the English phrase ***bad dog*** when spoken rapidly. For their aspirated or ejective counterparts, the aspiration or ejectivization occurs upon release.

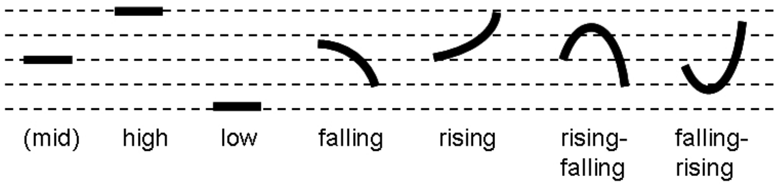
The pronunciation of affricates (**c**, **č**, **j**, and **ż**) when geminated depends on whether or not they are intervocalic (between two vowels) versus word-initial or word-final position. If intervocalic, they are pronounced by momentarily holding the initial stop (plosive) component of the affricate before releasing it into the fricative or sibilant portion, e.g., **cc** is pronounced as [**tts**]. For their aspirated or ejective counterparts, the aspiration or ejectivization occurs upon release into the fricative portion of the affricate. When in word-initial or word-final position, geminated pronunciation is achieved by simply lengthening the sibilant continuant portion of the affricate (i.e., the second sound of each affricate). Thus, **čč** in word-initial or word-final position is pronounced as [**tšš**].

1.3.1.4 Romanized Orthography of Geminates. Consonants written as single characters are simply written double when geminated, e.g., **bb**, **čč**, **dd**, **nn**, **šš**. Aspirates and ejectives indicate the following superscript-h or apostrophe diacritics only after the second character, e.g., **čč'**, **tt**$^{\mathbf{h}}$. The two digraphs **dh** and **xh** are written **ddh** and **xxh** when geminated.

1.3.2 Tone

Ithkuil is a tone language like Chinese, Vietnamese, and other Southeast Asian languages as well as most of the sub-Saharan African languages and some American Indian languages. This means that tone of voice is used to convey grammatical information, unlike Western languages which use tone and pitch changes "supra-segmentally" to mark various morpho-semantic features. For example, in English rising intonation of the voice signals a question, while other specific pitch contours signify emphasis, disgust, irony, and other attitudes. Ithkuil marks such features morphologically, i.e., within the words themselves (such as with affixes or variances in mood categories).

There are seven tones used in Ithkuil, one of which, mid tone, is considered to be morpho-phonologically neutral. The other six tones are **low**, **high**, **falling**, **rising**, **rising-falling** and **falling-rising**, and are considered functionally significant. Each word carries one functionally significant tone, pronounced beginning with the stressed syllable and continuously carried through any following syllables until the end of the word. Unstressed syllables prior to the stressed syllable have neutral mid tone. Therefore, the function of mid tone is solely to indicate the start of a new word since any preceding word must end in a tone other than mid. Like natural tone languages, the tones do not correspond to any exact pitch, but are relative for each individual speaker and utterance. The relative pitch of the tones is illustrated below:



1.3.2.1 Indicating Tone in the Romanized Transliteration. The six significant tones are indicated in the Romanized transliteration by a diacritic mark placed immediately before the first letter of the word, as follows:

- Falling tone is is unmarked.
- Low tone is indicated by an underscore (e.g., _).
- High tone is indicated by a macron or superscripted dash (e.g.,¯).
- Rising tone is indicated by a superscripted foward slash (e.g.,⁄).
- Falling-rising tone is indicated by either a caron (hacek) or a breve (e.g., ˇ or ˘), or if these symbols aren't available, a superscripted tilde (e.g., ˜).
- Rising-falling tone is indicated by a circumflex (e.g., ^).

1.3.3 Syllabic Stress

Stress normally falls on the **penultimate** (next-to-last) syllable but can shift to either the **ultimate** (last) syllable of a word, to the **antepenultimate** (third-from-last) syllable, and occasionally to the **preantepenultimate** (fourth-from-last) syllable, as determined by morphological (grammatical) considerations.

When transliterating Ithkuil into Roman characters, the number of vowels in Ithkuil requires the use of diacritics due to the limited number of Roman vowel characters. As a result, the orthographic representation of stress using the system of romanization becomes complicated. It is explained as follows:

1) All monosyllabic words are unmarked for stress.

2) The grave accent (`) designates an unstressed syllable when stress would otherwise be misinterpreted, e.g., in distinguishing monosyllabic diphthongs such as **au** and **ei** from dissyllabic vowel conjuncts **aù** and **eì**.

3) **Penultimate stress**. Polysyllabic words having penultimate stress are unmarked for stress, except for those containing the dissyllabic phonemes **ì** or **ù** as the penultimate syllable, which, if stressed, take an acute accent, e.g., the word **iskoùt** (stress on the **o**), if shifting to ultimate stress, becomes **iskoút** (stress on the **u**).

4) **Ultimate stress**. Polysyllabic words which have ultimate stress indicate this in one of the following ways:

- the unmarked vowels **a**, **e**, **i**, **o**, **u**, and the marked disyllabic vowels **ì** and **ù** take an acute accent, e.g., **á**, **é**, **í**, **ó**, **ú**.
- if the vowel to be stressed already carries a diacritic mark (other than the grave accent) and the vowel, diphthong, or syllabic liquid or nasal in the penultimate syllable does not, then this penultimate syllable takes a grave accent, e.g., **ròihnâl**.
- If the word has at least three syllables and the vowels or diphthongs in the last two syllables carry diacritics, then a grave accent over the antepenultimate (third-from-last) syllable implies ultimate stress (as the grave accent would be unnecessary if the word carried penultimate stress), e.g. **òspâtlök**.
- if the vowels (or diphthongs) in both the ultimate and penultimate syllables already have diacritic marks (other than the grave accent), and there is no antepenultimate syllable (or it, too, carries a pre-existing diacritic), then the stressed vowel is written double, e.g., **ksûtpöör**.

5) **Antepenultimate stress**. To show antepenultimate stress (third syllable from the end):

- if the stressed vowel (or diphthong or syllabic liquid or nasal consonant) does not carry a diacritic (other than the grave accent), it takes the acute accent, e.g., **áksiyor**
- if the stressed vowel already has a diacritic (other than the grave accent), then use the grave accent plus the lack of acute accent on the ultimate syllable or other non-diacriticized vowels to indicate stress, e.g., **ëitlàrrun**, **ôrümzìl**. (Note that the use of the grave accent over the **i** in **ôrümzìl** would be unnecessary if the word carried penultimate stress, therefore its presence implies antepenultimate stress).
- if existing diacritics prevent clear indication using the above rules, then the stressed vowel is written doubled, e.g., **öömolûk**.
- See Section 1.2.3.1 on the optional separation of diphthongs into separate syllables to increase the number of syllables for purposes of applying antepenultimate stress.

6) **Preantepenultimate stress**. To show preantepenultimate stress (i.e., fourth syllable from the end) apply the same rules as for antepenultimate stress above, but to the preantepenultimate syllable. See Section 1.2.3.1 on the optional separation of diphthongs into separate syllables to increase the number of syllables for purposes of applying preantepenultimate stress.

NOTE: Monosyllabic words in Ithkuil are to be interpreted grammatically as having the equivalent of penultimate stress. When necessary to gramatically indicate the equivalent ultimate or antepenultimate stress on a monosyllabic word, extra syllables (the vowel **-a-**) are added to the word in order to allow the necessary ultimate or antepenultimate syllable to be stressed, e.g., **kust** → **kustá**, **kust** → **ákusta**.

1.4 PHONOTACTIC RULES

In addition to phonological processes such as gemination, stress-shifting, and tone, all languages employ their own individual and arbitrary rules as to what combinations of consonants and vowels are permissible in a syllable or word. This concept is called **phonotaxis** and such rules are known as phonotactical rules. These rules, peculiar to each language, explain, for example, why *sprelch* could be a hypothetical word in English, while *znatk* could not be, even though *znatk* is as easily pronounced by a linguist as *sprelch*. Rules governing syllable structure, diphthong formation, and overall phonetic euphony are all part of phonotaxis

Equally important are the optional rules each language employs to achieve euphony and greater ease of pronunciation, known as phonaesthetics or phonaesthetic rules. Together, phonotaxis and phonaesthetics are greatly responsible for the phonetic "character" or subjective "sound" of a given language. The phonotactic and phonaesthetic rules for Ithkuil are described in the sections below.

1.4.1 Syllable Structure

The permissible syllable structure depends on whether the syllable forms a monosyllabic word, is a word-initial syllable, a word-final syllable, or is word-medial (i.e., between two other syllables). These structures are shown in Table 2 below, where (C) represents an optional consonant and V represents a mandatory vowel or diphthong.

Table 2: Syllabic Structure

Syllable Type	Structure	Examples
Consonantal Word	**C(C)(C)** *where final consonant is a nasal, liquid, or voiceless fricative continuant*	**s, h, ll, mm, pçç**
Monosyllabic	**(C)(C)(C)V(C)(C)(C)**	**a, ui, öt, isk, du, tuil, kleb, tlips, pskarn, xxoršt**
Word-initial	**(C)(C)(C)V(C)-** *or* **l, m, n, ň**	**uran, tamin, uisá, prine, klâtma, kstollap, ltas, mpeisku**
Word-medial	**-(C)(C)V(C)(C)-** *or* **l, m, n, ň**	**kialùn, ruentik, isteixlom, okspûtkai, hen-nau**
Word-final	**-(C)(C)V(C)(C)(C)-** *or* **l, m, n, ň**	**lua, entoi, tial, eifkés, poxšurn, erpsalks, ön-n**

The following rules apply:

- A single non-syllabic intervocalic consonant is syllabically part of the vowel following, not preceding.
- An intervocalic bi-consonantal conjunct is considered dissyllabic (i.e., each consonant is part of a different syllable), even if the conjunct is a geminate consonant.
- If a triple-consonant conjunct occurs in the middle of a word, the first consonant of the three must be in a separate syllable from the last consonant of the three. The middle consonant will be in the same syllable as whichever of the two surrounding consonants it forms a permissible word-initial or word-final cluster. If it can form permissible clusters with either surrounding consonant, it will be considered part of the syllable with which it is morphemically associated.

1.4.2 Constraints on Vowels

All the vowels, diphthongs, and dissyllabic vowel conjuncts previously mentioned can occur in any syllable, however, the maximum number of dissyllabic vowels which can occur immediately next to each other is two. If one of the two syllables is a diphthong, the diphthong must be the second syllable. Any syllable immediately following a diphthong must begin with at least one consonant. Trisyllabic vowel conjuncts (or more) are not permitted. Thus, words such as **dea** or **aitua** or **ruai** are permissible, but words such as **oia**, **tuoa**, **auem**, and **laúio** are not.

1.4.3 Constraints on Consonants

1.4.3 Constraints on Consonants

- The consonants **w** and **y** cannot appear in syllable-final position and must always be followed by a vowel.
- The glottal stop (**'**) does not occur word-initially except as a juncture feature (i.e., where two separate words come together). Specifically, when a word ends in a vowel and the next word begins with a vowel, Ithkuil phonetically separates the words by inserting a glottal stop at the beginning of the second word so that the word-final vowel of the first word does not combine with the word-initial vowel of the second. This serves to keep the two words separate and distinct. This glottal stop is unmarked in the Romanized transliteration. Elsewhere, the glottal stop may appear intervocalically, or may appear in syllable-final position if preceded by a vowel.
- No more than five consonants can occur in conjunction intervocallically, and only four in word-initial position. When intervocalic, the first two or three and last two or three consonants must each form permissible syllable-final and syllable initial conjuncts respectively. For word-initial conjuncts, the first three of the four consonants must form a permissible syllable-final conjunct on their own. Examples: **kstruifântu, alzmweit**, **urpstwam**.
- For intervocalic three-consonant conjuncts either the first consonant or the last consonant of the conjunct must be in a separate syllable than the other two consonants. If the first consonant is dissyllabic from the other two, then those other two consonants must be a permissible syllable-initial conjunct. If the third consonant is dissyllabic from the first two, then the first two must be a permissible syllable-final conjunct.
- For word-initial and word-final triple consonant conjuncts, these are generally permissible if the both the first two consonants are permissible as a conjunct by themselves and the last two consonants of the conjunct are permissible as a conjunct by themselves.

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Ithkuil: A Philosophical Design for a Hypothetical Language

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Chapter 2: Morpho-Phonology

2.1 Grammatical Typology
2.2 Root and Stem Formation
2.3 Semantic Instantiation of Stems
2.4 Parts of Speech
2.5 Note On Terminology

Morpho-phonology refers to how a language uses its phonemes (meaningful sounds) and phonological features (e.g., stress, tone, etc.) to generate patterns for word-formation and for morphological categories (e.g., singular versus plural, verb tense, etc.) to be applied to words.

2.1 GRAMMATICAL TYPOLOGY

Ithkuil morpho-phonology is primarily agglutinative and secondarily synthetic. That is, the manner in which morpho-semantic stems, inflections and derivations are formed, and how those elements combine meaningfully into words, is primarily via the joining of one or more affixes (including prefixes, suffixes, infixes and interfixes) to a semantic root, where the affixes themselves are highly synthetic (i.e., combining numerous morphological categories together into a single phonological form).

2.1.1 The Structure of Ithkuil Words

As will be discussed later in Section 2.4, the part of speech in Ithkuil which corresponds to nouns and verbs in Western languages is called a *formative*. The morphological structure of the Ithkuil formative can be shown by the following formula:

(((Cv +) VL +) Cg/Cs +) **Vr** + (Cx/Cv + Vp/VL +) **Cr** + **Vc** (+ Ci +Vi) + **Ca** (+ VxC) (+ Vf (+ Cb)) **[+ tone] [+ stress]**

The above terms, other than **Cr, [tone]** and **[stress],** refer to various consonantal or vocalic affixes. **Cr** corresponds to the word-root itself which is dicussed below in Section 2.2. All of the terms shown in gray are optional. However, as indicated by the pattern of parentheses in the formula, the presence of certain terms requires the presence of others.

The above morphological formula can be looked at as a series of numbered "slots" which will perhaps facilitate explanation of each term:

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/VL)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	('Cb))	**[tone]**	**[stress]**
Phase + Sanction (+ Illocution)	Valence	Validation OR Aspect	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction (+ Illocution)	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designa-tion + Relation

A brief, preliminary explanation of these terms is given in Table 3 below. Detailed explanation of these terms are found in succeeding sections or subsequent chapters.

Table 3: Explanation of Terms within the Morphological Formula for Ithkuil Formatives

I	Cv	An word-initial consonantal prefix which indicates the categories of Phase (see Section 5.5) and Sanction (see Section 5.6). Both Phase and Sanction are mandatory categories, however the presence of **Cv** in a formative is optional (i.e., unmarked) if both the Phase and Sanction of the formative have their default values. If **Cv** is present in Slot I, then Slot II through IV (see below) must be filled and Slot III must be filled by **Cs**, not **Cg**.
II	VL	A vocalic affix which shows a verbal category called Valence, discussed in Section Section 5.7. Valence is a mandatory category, however the presence of **VL** is optional (i.e., unmarked) if the formative's valence has its default value ***and*** Slot I (**Cv**) is unfilled/unmarked. If **VL** is present, then Slots III and IV below must also be filled.
III	Cg/Cs	A consonantal affix which indicates either of two categories: (1) Validation (see Section Section 5.9), in which case this term is referred to as **Cg**, or (2) Aspect, in which case this term is referred to as **Cs**. The actual phonological forms of **Cg** and **Cs** are distinct from one another so there is no confusion when interpreting which category is being conveyed. The presence of **Cv** in Slot I (see above) requires that Slot III be filled by **Cs**, not **Cg**. Aspect (**Cs**) is an optional category. It is possible for a formative to not carry any particular aspect, in which case the value of **Cs** (if present) will simply be a placeholder consonantal form. Validation (shown by **Cg**) is a mandatory category, however the presence of **Cg** is optional if the formative's valence has its default category. If the formative's validation is ***not*** its default value, but the presence of **Cg** is not allowed due to Slot III already being filled by **Cs**, then the word must be restructured to remove **Cv** from Slot I and to remove **Cs** from Slot III in order to allow the presence of **Cg**. The formative's Phase and Sanction (**Cv**) and Aspect (**Cs**) will instead be shown either by use of an adjunct (see Section 2.4.2 below), or by moving **Cv** and **Cs** to Slots V and XI respectively (if possible - see explanation for Slots V and XI below). The presence of either **Cg** or **Cs** in Slot III requires that Slot IV be filled.
IV	**Vr**	A vocalic "portmanteau" affix (i.e., conveying multiple types of morphological information), indicating the following morphological categories: Pattern and Stem (see Section 2.2.2 below), and Function (discussed in Section 5.1). Pattern and Stem are mandatory for all formatives, whereas Function occurs only if the formative carries an incorporated stem (see **Cx** in Slot V below).
V	Cx/Cv	Slot V serves two possible functions: (1) **Cx**, a consonantal form indicating an incorporated root (discussed in Section 6.4) or, in the absence of an incorporated root, it becomes (2) the slot for **Cv** showing the formative's Phase and Sanction (thus moving it from Slot I above). The presence of **Cx** or **Cv** in Slot V requires that Slot VI also be filled. If functioning as **Cx**, the formative must carry Format information shown by the term **Vf** in Slot XII below. If there is no Format shown in Slot XII, then any term in Slot V must be **Cv**, not **Cx**. If there is no incorporated root and the formative's Phase and Sanction have their default values or are already shown in Slot I, then Slot V is left empty (as well as Slot VI).
VI	Vp/VL	Slot VI serves two possible functions: (1) **Vp**, a vocalic affix indicating the Stem and Pattern (see Section 2.2.2 below) as well as Designation (see Section 3.7) of the incorporated root **Cx** in Slot V above, or, in the absence of an incorporated root, it becomes (2) the slot for **VL** showing the formative's Valence (thus moving it from Slot II above). If there is no incorporated root then Slot VI is left empty along with Slot V.
VII	**Cr**	A mandatory consonantal form (from one to five consonants in length) which represents the semantic root of the formative (see Section 2.2 below).
VIII	**Vc**	This is a mandatory vocalic affix indicating the case of the formative. The category of Case is discussed in Chapter 4.
IX	Ci +Vi	This is a consonant + vowel term consisting of one of four consonantal forms (**w-**, **y-**, **h-**, or **hw-**) plus a vocalic form, the whole of which indicates the Mood and Illocution of the formative (see Sections 5.2 and 5.3 respectively). Mood and Illocution are mandatory categories but both have default forms. If Mood and Illocution are in their default forms, then Slot IX is usually left unfilled/unmarked.
X	**Ca**	A mandatory consonantal portmanteau affix indicating the following five categories: Configuration, Affiliation, Perspective, Extension and Essence. These categories are all discussed in Chapter 3.
XI	Vx+C	An optional derivational suffix of the form vowel+consonant(s) which conveys additional morpho-semantic information. There are approximately 200 such suffixes which can be combined with a formative to expand the meaning of a word. These suffixes can also be multiply added to a stem, i.e., two or more such affixes can appear on a stem. These

		suffixes are analyzed at length in Chapter 7.
XII	**Vf**	A vocalic suffix which conveys the categories of Context (discussed in Section 3.6) and Format (discussed in Section 6.4). The presence of Format information requires that an incorporated root be present in the formative (i.e., the **Cx** term in Slot V above). In the absence of an incorporated root, **Vf** conveys the category of Context only. While Context is mandatory, it has a default value which, in the absence of Format and a Bias suffix in Slot XIII, is unmarked (i.e., Slot XII is left empty).
XIII	**’Cb**	A consonantal word-final suffix of the form glottal stop + consonant which indicates one of 48 Bias categories (discussed in Section 5.11). Bias is an optional category and is left unmarked (i.e., unfilled) if not present. However, if present, then Slot XII must also be filled.
XIV	**[tone]**	The six morphologically relevant tones (see Section 1.3.2) of an Ithkuil formative indicate the category of Version (see Section 5.8), a mandatory category.
XV	**[stress]**	As previously described in Section 1.3.3, there are four possible stress patterns for an Ithkuil formative, which convey the categories of Designation (see Section 3.7) and Relation (see Section 5.4).

Based on the above morphological formula, we can see that the simplest structure for a formative is

Vr + Cr + Vc + Ca + tone+stress

as illustrated by the examples **p^{h}al**, **eqoec**, and **¯üaklaršlá** below:

p^{h}al *‘tree’* LISTEN

Vr = (**a-**),* indicating Pattern 1, Stem 1 of the root plus STATIVE function
Cr = **-p^{h}-**, indicating the root: ‘branched/leaved plant’
Vc = **-a-**, indicating OBLIQUE case
Ca = **-l**, indicating NORMAL essence, DELIMITIVE extension, MONADIC perspective, UNIPLEX configuration, and CONSOLIDATIVE affiliation
tone = falling, indicating PROCESSUAL version
stress = penultimate**, indicating INFORMAL designation and UNFRAMED relation

*Note that the full form is **ap^{h}al**, however when the value of **Vc** is word-initial **a-** for a formative with penultimate stress, this initial **a-** can be deleted.

**As explained in Section 1.3.3, monosyllabic words are considered to have penultimate stress for morpho-phonological purposes.

eqoec *‘regarding humankind’* LISTEN

Vr = **e-**, indicating Pattern 1, Stem 2 of the root plus STATIVE function
Cr = **-q-**, indicating the root: ‘higher order life-form’
Vc = **-oe-**, indicating REFERENTIAL case
Ca = **-c**, indicating NORMAL essence, DELIMITIVE extension, ABSTRACT perspective, UNIPLEX configuration, and CONSOLIDATIVE affiliation
tone = falling, indicating PROCESSUAL version
stress = penultimate, indicating INFORMAL designation and UNFRAMED relation

¯üaklaršlá *‘it is/being a representation of the man-made courses/channels of a river that has dried up’* LISTEN

Vr = **üa-**, indicating Pattern 3, Stem 1 of the root plus MANIFESTIVE function
Cr = **-kl-**, indicating the root: ‘water in natural motion’
Vc = **-a-**, indicating OBLIQUE case
Ca = **-ršl(a)**, indicating REPRESENTATIVE essence, DEPLETIVE extension, MONADIC perspective, AGGREGATIVE configuration, and ASSOCIATIVE affiliation
tone = high, indicating COMPLETIVE version
stress = ultimate, indicating FORMAL designation and UNFRAMED relation

From the simpler formative structures above, we can examine the structure of increasingly complex words, e.g.,

Vr + Cr + Vc + Ci +Vi + Ca + Vx+Cs + Vf + ’Cb + **tone** + **stress**, as in:

Uip^{h}awâtļûxe’ň? *‘Might it happen to be a large symbolic grove of trees?’* LISTEN

Vr = (**ui-**), indicating Pattern 1, Stem 1 of the root plus MANIFESTIVE function
Cr = **-p^{h}-**, indicating the root: ‘branched/leaved plant’
Vc = **-a-**, indicating OBLIQUE case
Ci+Vi = **w**+**â**, indicating INTERROGATIVE illocution plus SUBJUNCTIVE mood
Ca = **-tļ**, indicating NORMAL essence, DELIMITIVE extension, MONADIC perspective, DISCRETE configuration, and CONSOLIDATIVE affiliation
Vx+Cs = **û**+**x**, the SIZE suffix in 6th degree, translatable as ‘big, large’
Vf = **e**, indicating REPRESENTATIONAL context
Cb = **ň**, indicating COINCIDENTAL bias
tone = falling, indicating PROCESSUAL version
stress = penultimate, indicating INFORMAL designation and UNFRAMED relation

or **Cg + Vr + Cx + Vp + Cr + Vc + Ca + Vx+Cs + Vf** + **tone** + **stress**, as in:

hremsoqaiţsurkoi *‘purportedly by means of the value derived from all the varied attributes of humanity’* LISTEN

Cg = **hr-**, indicating PURPORTIVE validation
Vr = **e-**, indicating Pattern 1, Stem 2 of the root plus STATIVE function
Cx = **-ms-**, indicating the incorporated root: ‘value/cost’
Vp = **o**, indicating Pattern 2, Stem 1, and INFORMAL designation of the incorporated root
Cr = **-q-**, indicating the main root: ‘higher order life-form’
Vc = **-ai-**, indicating INSTRUMENTAL case
Ca = **-ţs-**, indicating NORMAL essence, DELIMITIVE extension, ABSTRACT perspective, COMPOSITE configuration, and VARIATIVE affiliation
Vx+Cs = **u**+**rk**, the METONYMIC suffix in 9th degree, indicating the attributes/characteristics of the formative
Vf = **oi**, indicating AMALGAMATIVE context and AUTHORITATIVE format
tone = falling, indicating PROCESSUAL version
stress = penultimate, indicating INFORMAL designation and UNFRAMED relation

or a deliberately extreme example,

Cv + V$_{L}$ + Cs + Vr + Cx + Vp + Cr + Vc + Ca + Vx + Cs + Vf + ’Cb + tone + stress, as in:

/q^{h}ûl-lyai’svukšei’arpîptó’ks
‘...being hard to believe, after allegedly trying to go back to repeatedly inspiring fear using rag-tag groups of suspicious-looking clowns, despite resistance’

Cv = **q^h**, indicating ALLEGATIVE sanction plus REPETITIVE phase
VL = **û**, indicating RESISTIVE valence
Cs = **l-ly**, indicating REGRESSIVE aspect
Vr = **ai'**, indicating DYNAMIC function plus Pattern 1, Stem 2 for the main root
Cx = **sv**, indicating the incorporated root: 'fear'
Vp = **u**, indicating INFORMAL designation plus Pattern 3, Stem 1 for the incorporated root
Cr = **kš**, indicating the main root: 'fool/clown'
Vc = **ei'a**, indicating POSTCURSIVE case
Ca = **rp**, indicating NORMAL essence, DELIMITIVE extension, UNBOUNDED perspective, AGGREGATIVE configuration, and VARIATIVE affiliation
Vx + Cs = **îpt-**, the GENUINENESS/VERACITY suffix in 4th degree, indicating a suspicious-looking nature
Vf = **o**, indicating SCHEMATIC format and EXISTENTIAL context
Cb = **'ks**, indicating SKEPTICAL bias
tone = rising, indicating INEFFECTUAL version
stress = ultimate, indicating FORMAL designation for the main root

2.1.2 Disambiguation of Specific Affixes Within Words

Because many of the terms in the above morphological formula are optional, the reader might easily wonder how a speaker/reader of Ithkuil, when looking at or hearing an Ithkuil word, can possibly know which terms are actually shown in any given word, i.e., how to interpret from the given consonants and vowels in a particular word which of the optional morphological categories is being displayed or spoken. Or, in other words, how can one tell which slots are filled? In fact, such interpretation is indeed possible and is unambiguous due to the specific allowable consonant or vowel combinations allowed for each term, i.e., the specific consonantal or vocalic values allowed for one term are distinct from those allowed for another term which might occupy the same sequential position in a specific word. Also, as previously stated in Section 2.1.1 above and as indicated by the pattern of parentheses in the **(((Cv +) VL +) Cg/Cs +) Vr + (Cx/Cv + Vp/VL +) Cr + Vc (+ Ci +Vi) + Ca (+ VxC) (+ Vf (+ Cb)) [+ tone] [+ stress]** morphological formula, the presence of certain terms e.g., **VL**, requires the presence of other terms (**Ci + Vc**), in order to maintain a discernible sequence which can be unambiguously differentiated.

2.2 ROOT AND STEM FORMATION

All words in Ithkuil which translate into English as nouns or verbs are based on a monosyllabic **stem**, which in turn derives from an semantically abstract **root**. This process is explained in the sections below.

2.2.1 The Root

The **root** in Ithkuil forms the semantic basis from which actual noun/verb stems are derived. The root consists of a consonantal form, **Cr**, comprised of one to four consonants (e.g., **-k-**, **-st-**, **-ntr-**, **-pstw-**). Given Ithkuil phonotactic constraints (see Section 1.4) this gives approximately 3600 possible roots. (Note: roots of five consonants, e.g., **-rpskw-** are also phonotactically possible and available, but currently remain unassigned.) The root occupies Slot VII of a formative's morpho-phonological structure, as shown below.

I	II	III	**IV**	V	VI	**VII**	**VIII**	IX	X	XI	XII	XIII	XIV	XV
((Cv	**VL)**	**Cg/Cs)**	**Vr**	**(Cx/Cv**	**Vp/VL)**	**Cr**	**Vc**	**Ci +Vi**	**Ca**	**VxC**	**(Vf**	**('Cb))**	**[tone]**	**[stress]**
Phase + Sanction (+ Illocution)	Valence	Validation OR Aspect	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction (+ Illocution)	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designa-tion + Relation

The root is the basic semantic unit in Ithkuil. For example, **d-** is a root whose semantic referent is 'NAME/DESIGNATION'. Functional word-stems (or simply **stems**) are generated from the root via instantiation of the **Vr-** vocalic affix, as described below.

2.2.2 Stem and Pattern

There are three stems associated with each root. It is at the level of stem that Ithkuil roots become actual words with instantiated meaning. Each stem in turn manifests itself in three separate **Patterns**. Both Pattern and Stem are shown by changes to the **Vr-** vocalic affix.

The three patterns are labeled Pattern 1, Pattern 2, and Pattern 3. Pattern is used to divide a stem into a tripartite grouping consisting of a holistic stem and two complementary sub-stems. An example would be the holistic stem *spouse*, with its two complementary sub-stems *husband* and *wife*. This holistic versus complementary distinction is discussed at length below in Section 2.3. This distinction of holistic versus complementary patterns is one way in which Ithkuil systematizes at the morphological level what in other languages constitute lexical distinctions (i.e., differences in word-choice when translating). It is one of the many ways by which Ithkuil can function fully as a conceptually sophisticated and subtle language while having such a small number of semantic word roots.

A formative's Pattern and Stem are shown by the **Vr** affix in Slot IV, as previously described in Section 2.1.1. Besides showing a formative's Pattern and Stem, **Vr** shows the morphological category of Function, discussed in Section 5.1.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	**VL)**	**Cg/Cs)**	**Vr**	**(Cx/Cv**	**Vp/VL)**	**Cr**	**Vc**	**Ci +Vi**	**Ca**	**VxC**	**(Vf**	**('Cb))**	**[tone]**	**[stress]**
Phase + Sanction	Valence	Validation OR Aspect	**Pattern + Stem + Function**	Incorp.Root OR Phase + Sanction	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designa-tion + Relation

The values of **Vr-** by Stem and Pattern and Function are shown in Table 4 below.

Table 4: Values of Vr by Stem, Pattern, and Function

	Pattern 1			**Pattern 2**			**Pattern 3**		
	Stem 1	Stem 2	Stem 3	Stem 1	Stem 2	Stem 3	Stem 1	Stem 2	Stem 3
Function (see Sec. 5.1)									
STATIVE	**(a)**	**e**	**u**	**o**	**ö**	**î / û**	**â**	**ê**	**ô**
DYNAMIC	**i**	**ai**	**ei**	**au**	**eu**	**iu**	**ia / ua**	**ie / ue**	**io / uo**
MANIFESTIVE	**ui**	**ü / ou**	**ëi**	**ae**	**ea**	**oa**	**üa / aì**	**iù / uì**	**iö / uö**
DESCRIPTIVE	**oi**	**eo**	**eö**	**oe**	**öe**	**ëu**	**üo / oì**	**üe / eì**	**üö / aù**

In the sections below where we analyze the semantics of stems, all examples are given in the STATIVE function, as this corresponds to the most common (or default) function of a formative. Thus, the forms we will analyze are:

Pattern 1			**Pattern 2**			**Pattern 3**		
Stem 1	Stem 2	Stem 3	Stem 1	Stem 2	Stem 3	Stem 1	Stem 2	Stem 3
(a)C-	**eC-**	**uC-**	**oC-**	**öC-**	**îC- / ûC-**	**âC-**	**êC-**	**ôC-**

where **C-** represents the root consonant form **Cr**.

2.3 SEMANTIC INSTANTIATION OF STEMS

We can now examine how each root instantiates meaning into the above array of stems. We will start with the three stems associated with Pattern 1; these are the holistic stems. This will be followed in a subsequent section by an analysis of the twelve stems associated with Patterns 2 and 3, the complementary stems.

2.3.1 Holistic Stems

The three stems for Pattern 1 are designated by the **Vr** affixes (**a-**), **e-**, and **u-** respectively. Thus, the root **-d-** ‘NAME/DESIGNATION’ generates the following stems:

1. **(a)d-***‘name of something or someone; to name something or someone’*
2. **ed-** *‘designation or reference; to assign a designation, to refer to something’*
3. **ud-** *‘a (temporary or informal) reference, “nickname”; to give a (temporary or informal) reference or name to, to (temporarily) nickname’*

The semantic relationship between each stem and the underlying root is specific to each root. Nevertheless, certain patterns are common. Stem 1 usually refers to the most fundamental, basic, generalized, or common manifestation of the root concept, while Stem 2 is a more specific application or tangible manifestation thereof, or otherwise a subset of the meaning of Stem 1. Stem 3 may represent yet a further manifestation of the root, a further subset of Stem 1, or a tangential or related concept. For example, compare the relationship between the individual stems for the root **-d-** above with that of the root **-x-** (‘VISION/SIGHT’) below.

1. **(a)x-** *‘a sighting, an act of seeing something; to see something’*
2. **ex-** *‘an eye; to be an eye/become an eye/use one’s eye, etc.’*
3. **ux-** *‘an image in one’s mind; to visualize, to picture in one’s mind’*

Note that each stem carries both a nominal (noun) and a verbal meaning. This will be important later when we discuss parts of speech and nominal/verbal morphology.

2.3.2 Complementary Stems

Any Ithkuil stem is capable of being further broken down into two **complementary** stems which represent mutually exclusive component parts or aspects of the main stem. Many Ithkuil stems which translate common English nouns and verbs are, in fact, such complementary derivatives, rather than being holistic word-stems.

By “complementary” is meant that the manifestation of a concept appears in any given context as either one sort of entity or another, but never both simultaneously; yet, neither manifestation can be considered to be a discrete contextual whole without the existence of the other. In Ithkuil, for example, words such as *male*, *night*, *speech*, *sit*, and *happen* are not considered basic concepts, but rather are parts of greater holistic concepts, existing in complementary relationship to another part, the two together making up the whole.

Thus, Ithkuil lexical structure recognizes that the word *male* has no meaning in and of itself without an implicit recognition of its complementary partner, *female*, the two words mutually deriving from a more basic, holistic concept, translatable into English as *living being*. Similarly, the word *night(time)* derives along with its complement *day(time)* from the underlying concept translatable as *day* (i.e., a 24-hour period), while the concept of *speak(ing)* divides into complementary concepts of *talking* (focusing on the physical production of oral sound) versus *saying/telling* (focusing on the communicative content of oral sound).

Actions, too, are not exempt from this principle of complementarity, an example being the relationship between *sit* and *seat*; one has no meaning without an implicit and joint partnership with the other, i.e., one cannot sit unless one sits upon something, and whatever one sits upon in turn functions as a seat. Another example involves the word *happen* or *occur*, which Ithkuil recognizes as having no real meaning without the attendant implication of *consequence* or *result*, the two being complementary components of a holistic concept roughly translatable as *event* or *situation*.

2.3.2.1 Using Patterns 2 and 3 to Derive Complementary Stems. The first complementary stem is derived from the holistic stem by shifting the values of **Vr** to Pattern 2, i.e., **o-**, **ö-**, and **î-** (or **û-**), while the second complementary stem is derived by shifting **Vr** to Pattern 3, i.e., **â-**, **ê-**, and **ô-**. Several examples of complementary stem derivation are given below:

Holistic Stem	**eq-**: human being, person
1st Comp. Stem	**öq-**: male person
2nd Comp. Stem	**êq-**: female person

Holistic Stem	**aklá-**: a river
1st Comp. Stem	**oklá-**: the water in a river
2nd Comp. Stem	**âklá-**: a riverbed, river channel

Holistic Stem	**ult-**: an act of written composition; to compose something in writing
1st Comp. Stem	**ult-**: the physical act of composing in writing; to physically write a composition
2nd Comp. Stem	**ôlt-**: the written content or message of a composition; to create written content

Holistic Stem	**ax-**: sight; to undergo an act of seeing (both sensory experience and thing seen)
1st Comp. Stem	**ox-**: an act of seeing, a usage of one´s faculty of sight; to see with one’s eyes, to undergo a sighting
2nd Comp. Stem	**âx-**: a view, a sight, something (to be) seen; to cast a sight or image

2.3.2.2 Complementary Stems in Translation. As illustrated above, the structure of Ithkuil holistic vs. secondary complementary roots often neatly parallels English lexical distinctions, e.g., ‘speak/speech’ breaking down into the physical aspect of ‘talking’ versus the communicative aspect of ‘saying/telling’ or ‘person’ breaking down into ‘male’ and ‘female.’ However, it is often the case that this principle of complementarity creates a semantic situation which is counterintuitive to Western semantic notions.

For example, let us analyze the root **-mm-** ‘NUCLEAR FAMILY MEMBER’. While most languages would consider the concept *parent* as fundamentally opposite from the concept *child* and assign separate word-roots to each, Ithkuil recognizes that one implies the other. No person can be a parent unless they've had a child, just as any child must have (or have had) parents. This, then, constitutes an archetypal complementary relationship, the whole two-sided nature of which is referred to by the holistic stem **-mm-**. One way to interpret the meaning, then, of **-mm-** is to say that the word means both ‘parent’ and ‘child,’ which of course strikes one as being problematical, perhaps even nonsensical. But in fact, the word does not mean either ‘parent’ or‘ child,’ but rather a person who is one of the members of a parent-child relationship, i.e., a member of a nuclear family. With such a root, Stem 2 and Stem 3 in turn subdivide Stem 1 into the further complementary derivatives of male and female. Such “bi-level” derivations of complementary concepts using Stem 2 and Stem 3 are common in Ithkuil root/stem derivation. Here then are the actual meanings of the stems for **-mm-**.

	Holistic Stem	1st Complementary Stem	2nd Complementary Stem
Stem 1	**amm-** nuclear family member	**omm-**: parent	**âmm-**: child (offspring)
Stem 2	**emm-**: male nuclear family member	**ömm-**: father	**êmm-**: son
Stem 3	**umm-**: female nuclear family member	**ûmm-**: mother	**ômm-**: daughter

Additional conceptual complementary pairs which would be contained within single Ithkuil lexical roots are illustrated by the following examples:

Holistic Concept	Complementary Concepts	
eating	food	ingestion
think, act of thinking	a thought (thing considered)	process of consideration
liquid	fluid (= ontological nature)	wet[ness] (=defining attribute)
measuring	a measurement	process of measuring
transference of possession	giving	taking
traversal between points	coming, arrival	going, departure
commercial transaction	buying	selling

2.4 PARTS OF SPEECH

Ithkuil has only two parts of speech: *formatives* and *adjuncts*. While there are words which function as nouns and verbs, such nouns and verbs derive morphologically from the same grammatical stem (its nominal or verbal function or meaning being dependent on the particular morpho-semantic context), hence the term *formative*. This process of noun/verb derivation from formatives is discussed in detail in Section 2.4.1 below. Note that there are no adjectives, adverbs, prepositions, pronouns, determiners, conjunctions, particles or interjections in Ithkuil, at least not at any autonomous lexical level that can be termed a part of speech. The equivalents to, or substitutes for, these latter

Western grammatical notions all exist within the formative-adjunct morphological paradigm.

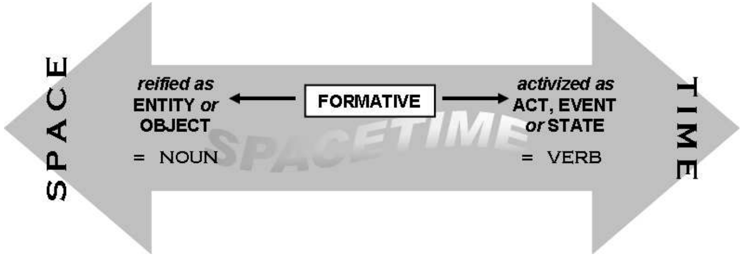
Western grammatical notions all exist within the formative-adjunct morphological paradigm.

Another dissimilarity with Western languages is that there are no irregular or defective forms; all formatives and adjuncts follow the same inflectional and derivational rules without exception and all formatives are theoretically capable of semantic denotation for every inflectional or derivational category, i.e., all inflectionally or derivationally possible words theoretically exist and have meaning (although, in actuality, some forms will of course be semantically anomalous, redundant, contrived, or distinguish shades of meaning that are contextually unnecessary).

2.4.1 Formatives

The stem formed as per the discussion in Section 2.3 above constitutes the grammatical part of speech termed the *formative*. All formatives, without exception, can function as both nouns or verbs, and the distinction as to whether a formative is to be interpreted as a noun or a verb can only be made by analyzing its morpho-syntactic relationship to the rest of the sentence. Consequently, there are no stems/formatives that refer only to nouns or only to verbs as in Western languages. The formative **aklá-** illustrated above in Section 2.3.2 means both ‘river’ and ‘to flow/run (as a river)’ with neither meaning being seen as more intrinsic or fundamental, nor one deriving from the other. Such hierarchies of nominal over verbal meaning (or vice-versa) arise only in translating Ithkuil to English or other Western languages, where such nominal versus verbal lexical constraints are inherent. Often, the interpretation or translation of an Ithkuil formative exclusively into a noun or verb form is arbitrary.

The reason why nouns and verbs can function as morphological derivatives of a single part of speech is because Ithkuil morpho-semantics does not see nouns and verbs as being cognitively distinct from one another, but rather as complementary manifestations of an idea existing in a common underlying semantic continuum whose components are space and time. As in physics, the holistic continuum containing these two components can be thought of as spacetime. It is in this continuum of spacetime that Ithkuil instantiates semantic ideas into lexical roots, giving rise to the part of speech termed the formative. The speaker then chooses to either *spatially “reify”* this formative into an object or entity (i.e., a noun) or to *temporally “activize”* it into an act, event, or state (i.e., a verb). This complementary process can be diagrammed as follows:



2.4.2 Adjuncts

Besides formatives, the other part of speech is the *adjunct*. Adjuncts are so named because they operate in conjunction with adjacent formatives to provide additional grammatical information about the formative, somewhat like auxiliary verbs in English (e.g., “may, will, would, do, have”) or like noun determiners (e.g., “the, this, those”).

Adjuncts are formed from one or more consonantal and/or vocalic affixes, combined agglutinatively. There are several different types of adjuncts, described in detail in Chapter 6 and Chapter 8. These include:

- **Personal Reference Adjuncts**: The nearest equivalent to Western personal pronouns, identifying in abbreviated form the participant entities to a verb or the entities associated with a particular noun in some case relationship. (See Section 8.1.)
- **Verbal Adjuncts**: These are used in conjunction with verbal formatives to provide information on the morphological categories of Valence, Level, Phase, Sanction, Illocution, Modality, Aspect and Bias. Each of these categories is discussed in Chapter 5 or Chapter 6.

2.5 NOTE ON TERMINOLOGY

While this chapter has mentioned a few specific morphological categories in passing, beginning with Chapter 3: Basic Morphology, morphological (i.e., grammatical) categories will be discussed in detail. It should be noted that, given the extensive array of overt morphological categories in Ithkuil, the terminology used in naming these categories is often arbitrary. Where a category functions similarly to a familiar linguistic category, the name of that category has been appropriated. Elsewhere, linguistic terminology from Indo-European,

Uralic, Amerindian or Caucasian grammar has been appropriated out of convenience, often with only a small similarity of function. In still

Uralic, Amerindian or Caucasian grammar has been appropriated out of convenience, often with only a small similarity of function. In still

other instances, I have contrived my own grammatical nomenclature.

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Ithkuil: A Philosophical Design for a Hypothetical Language

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Chapter 3: Basic Morphology

3.1 Configuration
3.2 Affiliation
3.3 Perspective
3.4 Extension
3.5 Essence
3.6 Context
3.7 Designation
3.8 Note On Morpho-Phonological Agreement

As previously discussed in Section 2.4.1, the distinction between nouns and verbs common to most languages is rather blurred in Ithkuil. All lexical stems in Ithkuil function equally as nouns or verbs and share many of the same morpho-semantic features and categories. This is because Ithkuil morpho-semantics does not see nouns and verbs as being cognitively distinct from one another, but rather as complementary manifestations of ideas existing in a common underlying semantic continuum whose components are space and time. The equivalents to nouns and verbs in other languages are merely “reified” (or nominalized) and “activized” (or verbalized) derivatives of semantic formatives. Nevertheless, for simplicity’s sake, we will refer to nominal formatives as nouns and verbal formatives as verbs when discussing their morphology.

All Ithkuil formatives, whether functioning as nouns or verbs, inflect for nine **Configurations**, four **Affiliations**, four **Perspectives**, six **Extensions**, two **Essences**, four **Contexts**, and two **Designations**, and can take any of approximately 1800 optional suffixes. These morphological categories are explained in the sections which follow.

3.1 CONFIGURATION

To understand the Ithkuil concept of enumeration and quantification of nouns (i.e., what other languages term singular, plural, etc.) one must analyze three separate but related grammatical categories termed **Configuration**, **Affiliation**, and **Perspective**. These concepts are alien to other languages. While they deal with semantic distinctions which are quantitative in nature, these distinctions are usually made at the lexical level (i.e., via word choice) in other languages, not at the morphological as in Ithkuil. In this section we will deal first with Configuration, followed by Affiliation in Section 3.2 and Perspective in Section 3.3.

Specifically, Configuration deals with the physical similarity or relationship between members of a noun referent within groups, collections, sets, assortments, arrangements, or contextual gestalts, as delineated by internal composition, separability, compartmentalization, physical similarity or componential structure. This is best explained and illustrated by means of analogies to certain English sets of words.

Consider the English word ‘tree.’ In English, a single tree may stand alone out of context, or it may be part of a group of trees. Such a group of trees may simply be two or more trees considered as a plural category based on mere number alone, e.g., two, three, or twenty trees. However, it is the nature of trees to exist in more contextually relevant groupings than merely numerical ones. For example, the trees may be of like species as in a ‘grove’ of trees. The grouping may be an assortment of different kinds of trees as in a ‘forest’ or occur in patternless disarray such as a ‘jungle.’

As another example, we can examine the English word ‘person.’ While persons may occur in simple numerical groupings such as ‘a (single) person’ or ‘three persons’ it is more common to find persons (i.e., people) referred to by words which indicate various groupings such as ‘group,’ ‘gathering,’ ‘crowd,’ etc.

Segmentation and amalgamated componential structure are further configurative principles which distinguish related words in English. The relationships between *car* versus *convoy*, *hanger* versus *rack*, *chess piece* versus *chess set*, *sentry* versus *blockade*, *piece of paper* versus *sheaf*, *girder* versus *(structural) framework*, and *coin* versus *roll of coins* all exemplify these principles.

Another type of contextual grouping of nouns occurs in binary sets, particularly in regard to body parts. These binary sets can comprise two identical referents as in *a pair of eyes*, however they are more often opposed or “mirror-image” (i.e., complementary) sets as in *limbs*, *ears*, *hands*, *wings*, etc.

In Ithkuil, the semantic distinctions implied by the above examples as they relate to varying assortments of trees or persons would be accomplished by inflecting the word-stem for ‘tree’ or ‘person’ into one of nine configurations. Additional semantic distinctions on the basis of purpose or function between individual members of a set could then be made by means of Affiliation (see Section 3.2 below) and by the use of specific suffixes. For example, once the words for ‘forest’ or ‘crowd’ were derived from ‘tree’ and ‘person’ via Configuration, the Ithkuil words for ‘orchard,’ ‘copse,’ ‘team’ or ‘mob’ could easily be derived via affiliation and affixes. (Such derivations into new words using suffixes are explored in detail in Chapter 7: Suffixes.)

Ithkuil words indicate Configuration via a synthetic consonantal affix immediately following the C+V stem which also indicates the Affiliation, Perspective, Extension and Essence of the stem. This is the **Ca** affix discussed in Section 2.1.1.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/VL)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	(’Cb))	**[tone]**	**[stress]**
Phase + Sanction	Valence	Validation OR Aspect	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Configuration + Affiliation + Perspective + Extension + Essence	Deriv. Suffix	Context + Format	Bias	Version	Designation + Relation

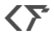
The actual values of these **Ca** affixes are shown later in Table 5 in Section 3.5.3 below, following the explanation of Essence.

The nine configurations are the **UNIPLEX**, **DUPLEX**, **DISCRETE**, **AGGREGATIVE**, **SEGMENTATIVE**, **COMPONENTIAL**, **COHERENT, COMPOSITE**, and **MULTIFORM.** The function and morphology of these categories are explained below along with examples of the various configurations applied to four different stems: **ap^h-**, **eq-**, **el-**, and **upšá-**.

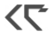
3.1.1 UNI The Uniplex

The UNIPLEX configuration indicates a single, contextual embodiment of the stem concept, i.e., one whole contextual unit of the basic nominal stem, e.g., *a tree, a person, a screwdriver, a grape, a hammer blow, a hole*. With verbs the UNIPLEX signifies a single, holistic act, state, or event, e.g., *to be a tree, to become a person, to use a screwdriver, to eat a grape, to strike (once) with a hammer, to dig a hole*. Examples: LISTEN

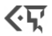
p^{h}al *‘a tree’*



eqal *‘a person’*



elal *‘an utterance; a spoken word’*



upšál *‘an incident’*

For the set of affixes which mark this configuration, see Table 5 in Section 3.5.3 below.

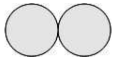
3.1.2 DPX The Duplex

The DUPLEX configuration indicates a related binary set. While it often refers to body parts, e.g., one’s eyes, ears, lungs, wings, etc., it can also be used to describe any set of two identical or complementary objects or entities, e.g., *a matched pair of vases, a two-volume set, a set of bookends, mutual opponents*. Thus, the Ithkuil word for *spouse* inflected for the DUPLEX configuration would translate as *a man and wife* or *a married couple*.

One context in which the DUPLEX appears for both nouns and verbs is with events which contain two complementary “halves” exemplified by English words such as *bounce*, *flash*, *arc*, *wag*, *swing*, *switch*, *breathe/respiration*, indeed, any concept which involves a dual-state notion of up/down, to/fro, back/forth, in/out, empty/full, or on/off. Use of the DUPLEX in these contexts implies a full cycling through the two complementary states involved. For example the word for *hammer blow* inflected for the UNIPLEX would signify the singular impact of the hammer, whereas the same word inflected for the DUPLEX signifies a single down-then-up cycle of the swing of the hammer, the two complementary “halves” of the action being divided by the impact. Examples: LISTEN

p^{h}all *'a pair of trees'*

eqall *'a couple'*



elall *'a pair of words'*

upšáll *'a pair of incidents'*

For the set of affixes which mark this configuration, see Table 5 in Section 3.5.3 below.

3.1.3 DCT The Discrete

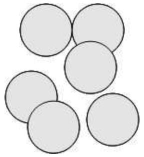
The DISCRETE configuration indicates a grouping or set of the basic stem units that are more or less identiform (each having the same design or physical appearance). This grouping or set-nature can be either spatial, as in *a flock of gulls* (flying together), or temporal (i.e., sequentially repetitive or iterative) as in *(a flock of) gulls flying one after another*. Further examples of English nouns or noun phrases which would be translated using the DISCRETE are *a grove, a set of screwdrivers, a group of soldiers, a pile of leaves, a bowl of grapes, a series of hammer blows, an area of holes*. Thus, the Ithkuil word for *(identical) set* would simply be the word for *thing* or *object* inflected for the DISCRETE configuration. Note that the distinction between a spatially configured set versus a temporally (i.e., iterative) configured set would be made by use of either the DPR suffix, **-šk**, or the SEP suffix, **-mb** specifying which spacetime axis is implied. These suffixes are analyzed in Sec. 7.4.13.

For verbs, the DISCRETE signifies a single set of repetitions, whether spatially or temporally, viewed as a single holistic event. The individual member components acts, states, or events within this set can be either UNIPLEX, e.g., *to take steps, to flip through pages, to have spots, to dig holes in an area*, or DUPLEX in nature, e.g., *to hammer, to spin, to breathe*.

It should be noted that the Containment CNM suffix, **-mt**, can be used with the DISCRETE, as well as most of the following configurations, to designate specifically the type of container, holder, or means of conveyance for a configurative set (e.g., a sack, package, jar, bottle, pile, load, etc.) Examples: LISTEN

p^{h}atļ *'a grove'*

eqatļ *'a group of matching people'*



elatļ *'a set of identical words'*

upšátļ *'a set of similar incidents'*

For the set of affixes which mark this configuration, see Table 5 in Section 3.5.3 below.

3.1.4 AGG The Aggregative

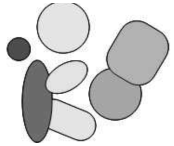
The AGGREGATIVE configuration functions like the DISCRETE above in referring to an associated group or set of entities, except that the members of the configurational set are not identical to one another. Examples of English words/entities which would be translated using the AGGREGATIVE are *a forest* (of different kinds of trees), *a toolset, a citizens group, a mixed pile of leaves, an assortment of animals, an area of different-sized holes, a series of musical notes*. With verbs, the AGGREGATIVE implies a spatially or temporally repeated set of non-identical acts, events, or states considered as a whole contextual unit. It would be used, for example, in translating the sentence *This morning I dug holes in my garden* (i.e., of different sizes). Examples: LISTEN

p^{h}aļ *'a forest; a wood'*

eqaļ *'a group of different people'*

elaļ *'a set of (differing) words; a phrase'*

upšáļ *'a set of differing incidents'*



For the set of affixes which mark this configuration, see Table 5 in Section 3.5.3 below.

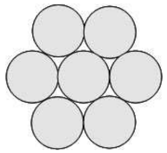
3.1.5 SEG The Segmentative

The SEGMENTATIVE configuration indicates a grouping or set of the basic stem units, the individual members of which are physically similar or identical and are either in physical contact with one another, physically connected via some linking medium, or in sufficiently close contact with one another so that the group moves or operates together. Examples would be *a web, a train of flatcars, a convoy of schoolbuses, a string of pearls, a fall of leaves, a line of dancers, a parade of Barbie dolls* (e.g., coming off an assembly line). To illustrate the difference between this configuration and the DISCRETE above, we saw that the word *grape* in the DISCRETE would be translated as *a serving of grapes*, while in the SEGMENTATIVE it would mean *a bunch of grapes* (i.e., still connected to each other on a portion of vine).

With verbs, the use of the SEGMENTATIVE versus the DISCRETE implies that the repetitive/iterative nature of the act, state, or event occurs naturally due to the contextual nature of the precipitating event or agent. It would thus be used to distinguish the fuselage of bullets from a machine-gun from the simple hail of bullets from single-fire weapons. Likewise, it would distinguish *The light is blinking* from *The light is flashing*, where *blink* implies the way in which the source naturally emits light, while *flash* implies that the light is being made to emit repetitive bursts of light. Examples: LISTEN

p^{h}aļļ *'a stand (or line) of trees'*

eqaļļ *'a line/wall of matching people'*
(e.g., shoulder-to-shoulder or with arms linked)



elaļļ *'a string of words'*

upšáļļ *'a chain of similar incidents'*

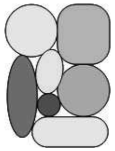
For the set of affixes which mark this configuration, see Table 5 in Section 3.5.3 below.

3.1.6 CPN The Componential

The COMPONENTIAL configuration operates identically to the SEGMENTATIVE above, except that the individual members of the configurational set are not physically similar or identical to each other. Examples of English words/entities which would be translated using the COMPONENTIAL are *a freight train, a cascade of (mixed) fruit (i.e., a continuous stream of fruit falling), a line of ticketholders, a parade of floats, a pattern of musical notes*. With verbs, the COMPONENTIAL signifies a connected series of repetitions where the individual acts, events, or states comprising the repetitive set are non-identical. It would distinguish *The light twinkled* from *The light was blinking*. Examples: LISTEN

p^{h}ařļ *'a line/stand of different trees'*

eqařļ *'a line/wall of different people'*
(e.g., shoulder-to-shoulder or with arms linked)



elařļ *'a string of differing words'*

upšářļ *'a chain of differing incidents'*

For the set of affixes which mark this configuration, see Table 5 in Section 3.5.3 below.

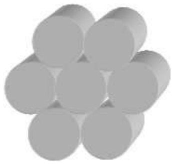
3.1.7 COH The Coherent

The COHERENT configuration functions similarly to the SEGMENTATIVE above, except that the individual members of the configuration are connected, fused or mixed with one another to form a coherent emergent entity, i.e., the total configuration of objects constitutes an entirely new gestalt-like entity. Examples of English words which would be translated using the COHERENT are *a bookcase, a phalanx, a xylophone*.

In the realm of verbs, finding English translations illustrating the COHERENT is difficult. If one can imagine the verb *to glow* to mean a series of flashes blurred one into another to create a continuous emanation, then *glow* versus *flash* might suffice. Perhaps a better illustration would be the difference between *to buzz* from *to make a set of repeating noises*. Examples: LISTEN

p^hask *'an entangled grove of trees'*
(i.e., their roots/branches intertwined
and grown together)

eqask *'a mass/unit of similar people'*



elask *'a speech made up of similar words'*

upšásk *'a web of similar incidents'*

For the set of affixes which mark this configuration, see Table 5 in Section 3.5.3 below.

3.1.8 CST The Composite

The COMPOSITE configuration operates the same as the COHERENT above except that the individual members of the configurational set are not identical or physically similar to one another. Examples of words/concepts that would be translated using the COMPOSITE are *a building* (= a constructional set of walls, floors, doors, windows, etc.), *a communications array, a conspiracy, a jungle thicket*. Thus the Ithkuil words for *recipe, skeleton,* and *melody* would simply be the words for *ingredient*, *bone*, and *musical note* inflected for the COMPOSITE configuration. For verbs, the COMPOSITE versus COHERENT distinction would distinguish *to rumble* from *to buzz*, or *to glitter* from *to glow*. Examples: LISTEN

p^hašk *'a jungle'*

eqašk *'a mass/unit of different people'*

elašk *'a speech'*

upšášk *'a situation (involving a number of incidents)'*

For the set of affixes which mark this configuration, see Table 5 in Section 3.5.3 below.

3.1.9 MLT The Multiform

The MULTIFORM configuration is the most difficult to explain, as there is no Western linguistic equivalent. The MULTIFORM serves to identify the noun as an individual member of a "fuzzy" set. A fuzzy set is a term which originates in non-traditional logic, describing a set whose individual members do not all share the same set-defining attributes to the same degree, i.e., while there may be one or more archetypical members of the set which display the defining attributes of the set exclusively and exactly, other members of the set may vary from this archetypical norm by a wide range of degrees, whether in physical resemblance, degree of cohesion or both. Indeed, some members of the set may display very little resemblance to the archetype and be closer to the archetype of a different fuzzy set, i.e., fuzzy sets allow for the idea of "gradient overlap" between members of differing sets.

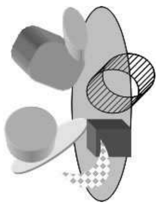
It is difficult to accurately translate into English without resorting to paraphrase the sorts of concepts that Ithkuil easily expresses using the MULTIFORM. For example, the Ithkuil word for 'tree' inflected for the MULTIFORM configuration would mean something like *a group of what appear to be trees*, or better yet, *a group of tree-like objects* (i.e., some being trees, and others seeming less like trees). Essentially, any set of entities whose similarity of membership varies by different degrees in comparison to an archetypical member of the set can be expressed using the MULTIFORM. For examples, the Ithkuil word for *library* would simply be a word meaning something like *work* (i.e. thing authored/composed) inflected for the MULTIFORM, signifying a hodge-podge assortment of writings and compositions (e.g., including books, pamphlets, notebooks, ledgers, formulas, letters, journals, recordings, magazines, etc.). Other example concepts translatable using the MULTIFORM would be *a rag-tag group of people, an incoherent pattern, lives in flux.*

With verbs, the MULTIFORM implies that the individual repetitions comprising an act, state, or event have varying degrees of spatio-temporal similarity to each other. A few English verbs such as *fluctuate, sputter* or *flicker* capture this sense. Examples:

LISTEN

p^hakţ *'a thicket/jungle thicket'*

eqakţ *'rag-tag group of people'*



elakţ *'incoherent speech/speak incoherently'*

upšákţ *'chaos / a chaotic situation'*

For the set of affixes which mark this configuration, see Table 5 in Section 3.5.3 below.

3.2 AFFILIATION

While the category of Configuration from the preceding section distinguishes the relationships between the individual members of a set in terms of physical characteristics, physical attributes or physical connections, the category of Affiliation operates similarly to distinguish the member relationships in terms of subjective purpose, function, or benefit. Affiliation operates synergistically in conjunction with Configuration to describe the total contextual relationship between the members of a set. Like Configuration, the meanings of nouns or verbs in the various affiliations often involve lexical changes when translated into English.

Returning to our earlier example of the word *tree*, we saw how a group of trees of the same species becomes *a grove* in the DISCRETE configuration. The word *grove* implies that the trees have grown naturally, with no specific purpose or function in regard to human design or utilization. On the other hand, groves of trees may be planted by design, in which case they become *an orchard*. We saw how trees occurring as a natural assortment of different kinds is termed *a forest*. However, such assortments can become wholly chaotic, displaying patternless disarray from the standpoint of subjective human design, thus becoming *a jungle*.

As another example, we saw how the word *person* becomes *group*, or *gathering*, both of which are neutral as to subjective purpose or function. However, applying a sense of purposeful design generates words such as *team*, while the absence of purpose results in *crowd*.

There are four affiliations: CONSOLIDATIVE, ASSOCIATIVE, VARIATIVE, and COALESCENT. Affiliation is indicated as part of the **Ca** affix as explained in Section 3.1 above and in Section 2.1.1.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/VL)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	('Cb))	**[tone]**	**[stress]**
Phase + Sanction	Valence	Validation OR Aspect	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Configuration + **Affiliation** + Perspective + Extension + Essence	Deriv. Suffix	Context + Format	Bias	Version	Designa-tion + Relation

The actual values of these **Ca** affixes are shown later in Table 5 in Section 3.5.3 below, following the explanation of Extension. The details of the four affiliations are explained below.

3.2.1 CSL The Consolidative

The CONSOLIDATIVE affiliation indicates that the individual members of a configurational set are a naturally occurring set where the function, state, purpose or benefit of individual members is inapplicable, irrelevant, or if applicable, is shared. It differs from the ASSOCIATIVE affiliation below in that the role of individual set members is not subjectively defined by human design. Examples are *tree branches, a grove, a mound of rocks, some people, the clouds*.

The CONSOLIDATIVE is also the affiliation normally applied to nouns in the UNIPLEX configuration when spoken of in a neutral way, since a noun in the UNIPLEX specifies one single entity without reference to a set, therefore the concept of "shared" function would be inapplicable. Examples: *a man, a door, a sensation of heat, a leaf*. With verbs, the CONSOLIDATIVE would imply that the act, state, or event is occurring naturally, or is neutral as to purpose or design.

For the set of affixes which mark this affiliation, see Table 5 in Section 3.5.3 below.

3.2.2 ASO The Associative

The ASSOCIATIVE affiliation indicates that the individual members of a configurational set share the same subjective function, state, purpose or benefit. Its use can be illustrated by taking the Ithkuil word for soldier in the DISCRETE configuration and comparing its English translations when inflected for the CONSOLIDATIVE affiliation (= *a group of soldiers*) versus the ASSOCIATIVE (= *a troop, a platoon)*. It is this CONSOLIDATIVE versus ASSOCIATIVE distinction, then, that would distinguish otherwise equivalent DISCRETE inflections of the Ithkuil word for tree by translating them respectively as *a grove* versus *an orchard*.

The ASSOCIATIVE affiliation can also be used with nouns in the UNIPLEX configuration to signify a sense of unity amongst one's characteristics, purposes, thoughts, etc. For example, the word *person* inflected for the UNIPLEX and ASSOCIATIVE would translate as *a single-minded person*. Even nouns such as *rock*, *tree* or *work of art* could be inflected this way, subjectively translatable as *a well-formed rock, a tree with integrity*, *a "balanced" work of art*.

With verbs, the ASSOCIATIVE signifies that the act, state or event is by design or with specific purpose. The CONSOLIDATIVE versus ASSOCIATIVE distinction could be used, for example, with the verb *turn* in *I turned toward the window* to indicate whether it was for no particular reason or due to a desire to look outside.

For the set of affixes which mark this affiliation, see Table 5 in Section 3.5.3 below.

3.2.3 VAR The Variative

The VARIATIVE affiliation indicates that the individual members of a configurational set differ as to subjective function, state, purpose or benefit. The differences among members can be to varying degrees (i.e., constituting a fuzzy set in regard to function, purpose, etc.) or at complete odds with one another, although it should be noted that the VARIATIVE would not be used to signify opposed but complementary differences among set members (see the COALESCENT affiliation below). It would thus be used to signify *a jumble of tools, odds-and-ends, a random gathering, a rag-tag group, a dysfunctional couple, a cacophony of notes, of a mess of books, a collection in disarray*. It operates with nouns in the UNIPLEX to render meanings such as *a man at odds with himself, an ill-formed rock, a chaotic piece of art, a "lefthand-righthand" situation*.

With verbs, the VARIATIVE indicates an act, state, or event that occurs for more than one reason or purpose, and that those reasons or purposes are more or less unrelated. This sense can probably be captured in English only through paraphrase, as in *She bought the house for various reasons* or *My being at the party served several purposes*. With non-UNIPLEX configurations, the use of the VARIATIVE affiliation can describe rather complex phenomena; for example, a sentence using the SEGMENTATIVE configuration such as *The light is blinking* in conjunction with the VARIATIVE would mean that each blink of the light signals something different than the preceding or following blinks.

For the set of affixes which mark this affiliation, see Table 5 in Section 3.5.3 below.

3.2.4 COA The Coalescent

The COALESCENT affiliation indicates that the members of a configurational set share in a complementary relationship with respect to their individual functions, states, purposes, benefits, etc. This means that, while each member's function is distinct from those of other members, each serves in furtherance of some greater unified role. For example, the Ithkuil word translating English *toolset* would be the word for *tool* in the AGGREGATIVE configuration (due to each tool's distinct physical appearance) and the COALESCENT affiliation to indicate that each tool has a distinct but complementary function in furtherance of enabling construction or repair activities. Another example would be the Ithkuil word for *finger* inflected for the SEGMENTATIVE configuration and the COALESCENT affiliation, translatable as the fingers on one's hand (note the use of the SEGMENTATIVE to imply the physical connection between each finger via the hand). A further example would be using the COALESCENT with the word for *(piece of) food* to signify *a well-balanced meal.*

The COALESCENT naturally appears most often in conjunction with the DUPLEX configuration since binary sets tend to be complementary. It is used, for example, to signify symmetrical binary sets such as body parts, generally indicating a lefthand/righthand mirror-image distinction, e.g., *one's ears, one's hands, a pair of wings*. Pairs that do not normally distinguish such a complementary distinction (e.g., *one's eyes*) can nevertheless be optionally placed in the COALESCENT affiliation to emphasize bilateral symmetry (e.g., *one's left and right eye functioning together*).

With verbs, the COALESCENT signifies that related, synergistic nature of the component acts, states, and events which make up a greater holistic act, state, or event. It imposes a situational structure onto an act, state, or event, where individual circumstances work together in complementary fashion to comprise the total situation. It would be used, for example, to distinguish the sentences *He traveled in the Yukon* from *He ventured in the Yukon*, or *I came up with a plan* versus *I fashioned a plan*.

For the set of affixes which mark this affiliation, see Table 5 in Section 3.5.3 below.

3.3. PERSPECTIVE

Perspective is the closest Ithkuil morphological category to the Number and Tense categories of other languages (e.g., singular/plural and past/present/future). However, the correspondence is only approximate because Perspective does not specifically address the quantity to which a formative is instantiated within a given context, nor when it occurs relative to the present, but rather the manner in which it is *spatio-temporally instantiated*. Specifically, Perspective indicates whether a noun or verb is to be identified as 1) a "bounded" contextual entity (i.e., having a spatio-temporally unified or accessible manifestation), 2) an unbounded entity (i.e., manifested as spatio-temporally separated or inaccessible), 3) as a unified collective or generic entity throughout spacetime, or 4) as a spatio-temporally neutral abstraction. How this works requires separate explanations for nouns and verbs.

Perspective with Nouns. What Perspective means for nouns is that, in addition to merely indicating whether a given spatial context contains one or more than one, it also specifies single versus multiple manifestations in time, as well as along an axis of concreteness versus abstraction. Complicating the picture is the fact that the categories of Configuration and Affiliation (see Sections 3.1 and 3.2 above) already contain an implicit numerical element due to the fact that they usually describe multi-membered sets. It is for all these reasons that the terms "singular" and "plural" have been avoided.

Perspective with Verbs. For verbs, the aspect of "boundedness" inherent in Perspective does not imply a quantitative context but rather an aspect of spatio-temporal "accessibility," i.e., whether or not an act, state, or event can be viewed as a unified whole within the present temporal context. This is a long way from the "tense" categories of Western languages. In Ithkuil, the notion of linearly progressive time is not inherently expressed in the verb (although it can be specified, if necessary, using various aspectual markers - see Section 5.10).

There are four perspectives in Ithkuil: MONADIC, UNBOUNDED, NOMIC, and ABSTRACT. These are indicated as part of the **Ca** affix as explained in Sec. 3.1 above.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	**VL)**	**Cg/Cs)**	**Vr**	**(Cx/Cv**	**Vp/VL)**	**Cr**	**Vc**	**Ci +Vi**	**Ca**	**VxC**	**(Vf**	**('Cb))**	**[tone]**	**[stress]**
Phase + Sanction	Valence	Validation OR Aspect	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Configuration + Affiliation+ **Perspective** + Extension + Essence	Deriv. Suffix	Context + Format	Bias	Version	Designation + Relation

The actual values of these **Ca** affixes are shown later in Table 5 in Section 3.5.3 below, following the explanation of Extension. Each perspective's specific meaning and usage is explained and illustrated below.

3.3.1 M The Monadic

The MONADIC signifies a bounded embodiment of a particular configuration. By "bounded embodiment" is meant a contextual entity which, though possibly numerous in membership or multifaceted in structure, or spread out through a time duration, is nevertheless being contextually viewed and considered as a "monad," a single, unified whole perceived to exist within a literal or figurative psychologically uninterrupted boundary. This is important, since configurations other than the UNIPLEX technically imply more than one discrete entity/instance being present or taking place. For nouns, this boundary is physically contiguous, like a container, corresponding to the "surface" of an object (whether literal or psychological). For verbs, this boundary is psychologically temporal, specifically the "present" (which in Ithkuil might be better thought of as the "context at hand" or the "immediately accessible context"). This distinction as to how "bounded embodiment" is interpreted for nouns and verbs is appropriate, given that Ithkuil considers nouns as *spatially reified* concepts while considering verbs to be their *temporally "activized"* counterparts (see Section 2.4.1).

Thus, using the word *tree* for example, while there might be many trees present in terms of number, the MONADIC implies they form only one embodiment of whatever particular Configuration category is manifested. Using the AGGREGATIVE configuration as an example, the MONADIC would mean there is only one AGGREGATIVE set of trees, i.e., one *forest.*

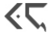
At this point, it should be noted in regard to Perspective that Ithkuil makes no distinction between "count" and "non-count" (or "mass")

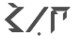
At this point, it should be noted in regard to Perspective that Ithkuil makes no distinction between "count" and "non-count" (or "mass") nouns. In languages such as English, nouns differ between those that can be counted and pluralized (e.g., *one apple, four boys, several nations*), and those which cannot be counted or pluralized (e.g., *water, sand, plastic, air, laughter*). All nouns are countable in Ithkuil in that all nouns can exist as contextual monads. As a result, English translations of certain Ithkuil nouns must often be "contextual" rather than literal, employing various conventions to put the noun in a numerical and pluralizable context, e.g., 'some dirt,' 'the air here' or 'a puff of air' rather than "a dirt" or "an air."

With verbs, the MONADIC superficially corresponds in a very approximate fashion with Western present tense categories except in a habitual sense. As noted above, the bounded embodiment conveyed by the MONADIC means that the act, state, or event is temporally contiguous and accessible from the point of view of the present context. It would be used to describes an act, state, or event which:

- takes place entirely in the present context
- started in the accessible past and has continued on into the present context
- starts within the present context and continues on into an accessible future
- started in an inaccessible past, but only the portion taking place in the present context is being addressed or is under consideration or relevant within the context of the utterance
- starts within the present context and may continue into an inaccessible future, but only the portion taking place in the present context is being addressed or is under consideration or relevant within the context of the utterance
- started in an inaccessible past and will continue into an inaccessible future, but only the portion taking place in the present context is being addressed or is under consideration or relevant within the context of the utterance

By "accessible past" or "accessible future" is meant a past or future where the speaker was (or will be) spatially present at the time and the time elapsed between then and "now" is psychologically contiguous, i.e., the speaker views the passage of time from then till now as one continuous temporal flow of moments, not as disconnected memories, disconnected predictions, or historical reports. Conversely, "inaccessible" would mean a past or future where the speaker was not or will not be present or which he/she knows only from memory, reports, or predictions. Examples: LISTEN


aklál
'a river;
a river flows'


u't'ak'ařš
'constellation;
a constellation shines (in the night sky) '

vyarl
'a set of benefits;
a set of benefits is in effect'

3.3.2 U The Unbounded

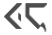
The UNBOUNDED signifies "unbounded embodiment" of a particular configurative entity, meaning that the noun or verb manifests itself as not being contained within an uninterrupted boundary, i.e., in contextually "disconnected" manifestations. For nouns, the term "plural" has been avoided so as not to imply that the member nouns are not being referred to quantitatively per se, but rather as a non-monadic (i.e., non-unified) manifestation of a configurative set. While the most convenient translation into English would be to use the plural, e.g., trees, groves, lumps of dirt, a semantically (if not morphologically) more accurate rendering would be 'a tree here, a tree there,' 'this grove and another and another…,' 'dirt-lump after dirt-lump after dirt-lump….'

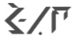
For verbs, "unbounded embodiment" means that the psychological temporal boundary of an act, state, or event is not accessible from the present context. This would apply to an act, state, or event which:

- occurs entirely in the inaccessible past
- will occur entirely in the inaccessible future (if used with the PROSPECTIVE aspect - see Section 5.10.2
- may be occurring in the present context but started in an inaccessible past, and the portion occurring in the present context cannot be understood without taking into account that past portion
- may be occurring in the present context but will continue into an inaccessible future, and the portion occurring in the present context cannot be understood without taking into account the future portion
- started in an inaccessible past and will continue into an inaccessible future, and the portion occurring in the present context cannot be understood without taking into account these inaccessible portions

Note that, even more so than with the MONADIC, translation of the UNBOUNDED into Western languages is subjective, as the translation must necessarily convey linear tense information which is not conveyed by the Ithkuil original.

Examples: LISTEN


aklát *'what once was a river; the river once flowed (but no longer)'*


u't'ak'ařg *'a past constellation; the constellation shone (but no longer)'*

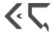
vyark *'a former set of benefits; a set of benefits was in effect (but no longer)'*

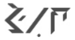
3.3.3 N The Nomic

The NOMIC refers to a generic collective entity or archetype, containing all members or instantiations of a configurative set throughout space and time (or within a specified spatio-temporal context). Since it is all members being spoken of, and no individual members in particular, this category is mutually exclusive from the MONADIC or UNBOUNDED. For nouns, the NOMIC corresponds approximately to the several constructions used for referring to collective nouns in English, as seen in the sentences ***The dog*** *is a noble beast,* ***Clowns*** *are what children love most, There is nothing like* ***a tree***.

With verbs, the NOMIC designates an action, event, or situation which describes a general law of nature or a persistently true condition or situation spoken of in general, without reference to a specific instance or occurrence of the activity (it is, in fact, all possible instances or occurrences that are being referred to). English has no specialized way of expressing such generic statements, generally using the simple present tense. Examples of usage would be *The sun doesn't set on our planet, Mr. Okotele is sickly, In winter it snows a lot, That girl sings well.*

Examples: LISTEN


akláţ *'(flowing) river(s) (as a generic concept)'*


u't'ak'ařç *'(shining) constelation(s) (as a generic concept)'*

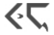
vyarx *'a set of benefits being in effect (as a generic concept)'*

3.3.4 A The Abstract

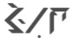
Similar to the formation of English abstract nouns using suffixes such as *-hood* or *-ness*, the ABSTRACT transforms a configurative category into an abstract concept considered in a non-spatial, timeless, numberless context. While only certain nouns in English can be made into abstracts via suffixes, all Ithkuil nouns in all Configurative categories can be made into abstracts, the translations of which must often be periphrastic in nature, e.g., *grove → the idea of being a grove* or *"grovehood"*; *book → everything about books, having to do with books, involvement with books*.

With verbs, the ABSTRACT is used in verbal constructions to create a temporal abstraction, where the temporal relationship of the action, event, or state to the present is irrelevant or inapplicable, similar to the way in which the English infinitive or gerund form (used as substitutes for a verb phrase) do not convey a specific tense in the following sentences: ***Singing*** *is not his strong suit; It makes no sense* ***to worry*** *about it; I can't stand her* ***pouting***. As a result, the ABSTRACT acts as a "timeless" verb form which, much like these English infinitives and gerunds, operates in conjunction with a separate main verb in one of the other three perspectives. The ABSTRACT is often infinitives and gerunds, operates in conjunction with a separate main verb in one of the other three perspectives. The ABSTRACT is often used in conjunction with certain modalities and moods of the verb (see Sec. 6.1 on Modality and Section 5.2 on Mood) which convey hypothetical or unrealized situations, in which the temporal relationship to the present is arbitrary, inapplicable, or unknowable.

Examples: LISTEN



aklác *'the river as an idea / everything about being a river / "river-hood" '*



u't'ak'apst *'the idea of a constellation / "constellation-hood" '*

vyarč *'the idea of having/providing benefits'*

3.4 EXTENSION

Extension is another Ithkuil morphological category for which there is no exact equivalent in other languages. It applies to all formatives and indicates the manner in which the noun or verb is being considered in terms of spatial or temporal extent or boundaries. There are six extensions: DELIMITIVE, PROXIMAL, INCEPTIVE, TERMINATIVE, DEPLETIVE, and GRADUATIVE.

Extension is shown as part of a formative's **Ca** affix which also indicates Configuration, Affiliation, Perspective and Essence. The values of this affix are shown in Sec. 3.5.3.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/VL)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	('Cb))	**[tone]**	**[stress]**
Phase + Sanction	Valence	Validation OR Aspect	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Configuration + Affiliation+ **Perspective + Extension +** Essence	Deriv. Suffix	Context + Format	Bias	Version	Designation + Relation

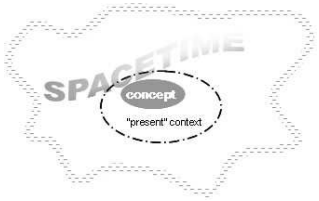
Alternately, extension can be shown via tone-marking of an adjacent verbal adjunct, explained in Section 6.3.5.

The details of how each of the six extensions operates are explained as follows:

3.4.1 DEL The Delimitive

The DELIMITIVE extension indicates that a noun is being spoken of in its contextual entirety as a discrete entity with clear spatio-temporal boundaries, with no emphasis on any particular portion, edge, boundary, limit, or manifestation beyond the context at hand. It can be considered the neutral or default view, e.g., *a tree, a grove, a set of books, an army*. To illustrate a contextual example, the English sentence *He climbed the ladder* would be translated with the word *ladder* in the DELIMITIVE to show it is being considered as a whole. With verbs, this extension indicates that the act, state, or event is being considered in its entirety, from beginning to end, e.g., *She diets every winter* (i.e., she starts and finishes each diet).

The DELIMITIVE can be thought of as an expanse of spacetime that has definite beginning and ending points, beyond which the noun or verb does not exist or occur. The graphic to the right illustrates the spatio-temporal relationship of a concept in the DELIMITIVE to the context at-hand (i.e., the spatio-temporal "present").



Examples: LISTEN

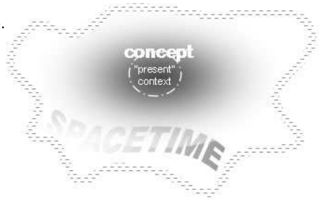
aklál *'a river'*

pšašk *'a situation'*

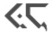
3.4.2 PRX The Proximal

The PROXIMAL extension indicates that a noun is being spoken of not in its entirety, but rather only in terms of the portion, duration, subset, or aspect which is relevant to the context at hand. It would be used to translate the words *tree*, *journey*, and *ladder* in the sentences *That tree is hard there* (e.g., in the spot where I hit against it), *She lost weight during her journey*, or *He climbed on the ladder* (i.e., it is not relevant to the context to know if he made it all the way to the top). Note that in these sentences, the PROXIMAL does not refer to a specific or delineated piece, part, or component of the tree or ladder, but rather to the fact that delineated boundaries such as the ends of the ladder or the entirety of the tree are not relevant or applicable to the context at hand. With verbs, this extension signifies that it is not the entirety of an act, state, or event which is being considered, but rather the spatial extent or durational period of the act, state, or event relevant to the context, e.g., *She's on a diet every winter* (i.e., focus on "having to live on" a diet, not the total time spent dieting from start to finish).

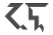
The graphic to the right illustrates the spatio-temporal relationship of a noun or verbal concept in the PROXIMAL to the context at-hand (i.e., the spatio-temporal "present").



Examples: LISTEN



aklás
'a section/stretch of (the) river'

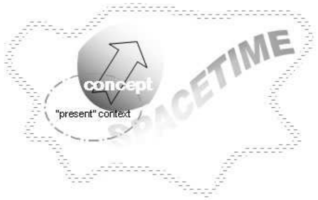


pšams
'the midst of a situation'

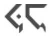
3.4.3 ICP The Inceptive

The INCEPTIVE extension focuses on the closest boundary, the beginning, initiation, or the immediately accessible portion of a noun or verb, without focusing on the boundaries of the remainder. It would be used in translating the nouns *tunnel*, *song*, *desert*, *daybreak* and *plan* in the following sentences: *We looked into (the mouth of) the tunnel, He recognizes that song* (i.e., from the first few notes), *They came upon (an expanse of) desert, Let's wait for daybreak, I'm working out a plan* (i.e., that I just thought of). In verbal contexts it would correspond to the English 'to begin (to)…' or 'to start (to)…' as in *He began reading, It's starting to molt, or She goes on a diet every winter.*

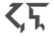
The graphic to the right illustrates the spatio-temporal relationship of a noun or verbal concept in the INCEPTIVE to the context at-hand (i.e., the spatio-temporal "present").



Examples: LISTEN



klamtá *'the beginning of a river'*



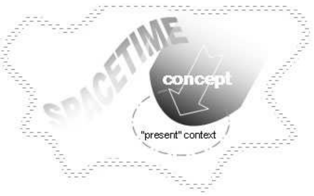
pšapšt' *'the beginning/start of a situation'*

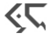
3.4.4 TRM The Terminative

The TERMINATIVE extension focuses on the end, termination, last portion, or trailing boundary of a noun, without focusing on the preceding or previously existing state of the noun. It would be used in translating the words *water*, *story*, and *arrival* in the sentences *There's no water* (i.e., we ran out), *I like the end of that story*, and *We await your arrival.* With verbs, it is illustrated by the sentences *It finished molting* or *She's come off her diet.*

The graphic to the right illustrates the spatio-temporal relationship of a noun or verbal

The graphic to the right illustrates the spatio-temporal relationship of a noun or verbal concept in the TERMINATIVE to the context at-hand (i.e., the spatio-temporal "present"). Examples: LISTEN





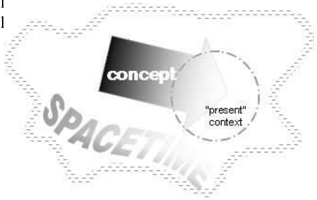
klat'á *'the end of a river'*

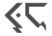
pšakt' *'the end of a situation'*

3.4.5 DPL The Depletive

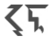
The DEPLETIVE extension focuses on the terminal boundary or "trailing" edge of a noun, where this terminus is ill-defined, "diffuse" or extended to some degree, (i.e. the at-hand context of the noun "peters out" or terminates gradually). Essentially, it applies to any context involving actual or figurative fading. It would be used in translating the words *water*, *strength*, and *twilight* in the sentences *He drank the last of the water, I have little strength left, She disappeared into the twilight*. With verbs, it is exemplified by the phrases *to wind down, to fade out, to disappear gradually* and similar notions, e.g., *She's eating less and less these days*.

The graphic to the right illustrates the spatio-temporal relationship of a noun or verbal concept in the DEPLETIVE to the context at-hand (i.e., the spatio-temporal "present"). Examples: LISTEN





klakcá *'the mouth of a river'*



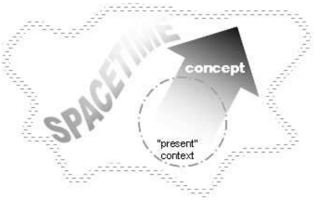
pšańsk *'the last vestiges of a situation'*

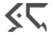
3.4.6 GRA The Graduative

The GRADUATIVE extension is the inverse of the DEPLETIVE, focusing on a diffuse, extended "fade-in" or gradual onset of a noun. It would be used in translating the words *darkness*, *wonder*, and *music* in the following sentences: *Darkness came upon us, I felt a growing sense of wonder, The music was very soft at first*. With verbs it is illustrated by verbs and phrases such as *to fade in, to start gradually, to build up*, and similar notions, e.g., *She's been eating more and more lately*.

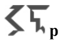
The graphic to the right illustrates the spatio-temporal relationship of a noun in the GRADUATIVE to the context at-hand (i.e., the spatio-temporal "present"). Examples:

LISTEN





klakc'á *'the headwaters of a river'*



pšańsk' *'a gradually developing situation'*

3.5 ESSENCE

Essence refers to a two-fold morphological distinction which has no counterpart in Western languages. It is best explained by reference to various English language illustrations. Compare the following pairs of English sentences:

1a) *The boy ran off to sea.*
1b) *The boy who ran off to sea didn't run off to sea.*

2a) *The dog you saw is to be sold tomorrow.*

2a) *The dog you saw is to be sold tomorrow.*

2b) *The dog you saw doesn't exist.*

Sentences (1a) and (2a) appear to be straightforward sentences in terms of meaning and interpretation. However, at first blush, sentences (1b) and (2b) appear nonsensical, and it is not until we consider specialized contexts for these sentences that they make any sense. For example, (1b) would make sense if being spoken by an author reporting a change of mind about the plot for a story, while (2b) makes sense when spoken by a puzzled pet store owner in whose window you earlier saw a dog that is now no longer there.

Why sentences such as (1b) and (2b) can have possible real-world meaning is because they in fact do not make reference to an actual boy or dog, but rather to hypothetical representations of a real-world boy and dog, being used as references back to those real-world counterparts from within an "alternative mental space" created psychologically (and implied linguistically) where events can be spoken about that are either unreal, as-yet-unrealized, or alternative versions of what really takes place. This alternative mental space, then, is essentially the psychological realm of both potential and imagination. In Western languages, such an alternative mental space is implied by context or indicated by certain lexical signals. One such group of lexical signals are the so-called "modal" verbs of English, e.g., *must, can, should*, etc. as seen in the following:

3) *You must come home at once.*
4) *That girl can sing better than anybody.*
5) *We should attack at dawn.*

Each of the above three sentences describe potential events, not actual real-world happenings that are occurring or have occurred. For example, in Sentence (3) no one has yet come home nor do we know whether coming home is even possible, in Sentence (4) the girl may never sing a single note ever again for all we know, and Sentence (5) gives us no information as to whether any attack will actually occur.

3.5.1 NRM The Normal
RPV The Representative

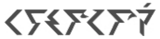
The Ithkuil category of Essence explicitly distinguishes real-world actualities from their alternative, imagined or potential counterparts. The two essences are termed NORMAL and REPRESENTATIVE, the former being the default essence denoting real-world nouns and verbs, the latter denoting alternative counterparts. By marking such counterparts explicitly, Ithkuil allows a speaker to express any noun or verb as referring to a real-world versus alternative manifestation, without having the listener infer such from an explanatory context.

Essence is as part of the **Ca** affix which also indicates Configuration, Affiliation and Perspective. The values of this affix are shown below in Sec. 3.5.3.

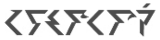
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/VL)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	('Cb))	**[tone]**	**[stress]**
Phase + Sanction	Valence	Validation OR Aspect	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Configuration + Affiliation + Perspective + Extension + Essence	Deriv. Suffix	Context + Format	Bias	Version	Designation + Relation

3.5.2 Examples of Essence in Use

Compare the following two sentences and their translations to see how placement of the REPRESENTATIVE essence on different formatives changes the meaning.



Xal öqil êqattêp^h.
STA-'see'-NRM/DEL/M/CSL/UNI-IFL STA-'man'-AFF-NRM/DEL/M/CSL/UNI-IFL STA-'woman'-OBL-RPV/DEL/M/CSL/UNI-MAT$_2$/3-IFL
The man sees what he thinks is/imagines to be a young girl. LISTEN



Xatta öqil êqalêp^h.
STA-'see'-RPV/DEL/M/CSL/UNI-IFL STA-'man'-AFF-NRM/DEL/M/CSL/UNI-IFL STA-'woman'-OBL-NRM/DEL/M/CSL/UNI-MAT$_2$/3-IFL
The man is imagining he sees a young girl. LISTEN

Ûb eikkradwa smou'olâxh.

EXN$_1$/6 DYN-'move.along.obliquely.vertical.path.between.two.points'-**RPV**/PRX/N/CSL/UNI-IFL STA-'valley'-NAV-NRM/DEL/M/CSL/UNI-SCO$_2$/5-IFL

The path through the canyon is/seems steep. LISTEN

In the example immediately above, no one is necessarily on the path (including the speaker), so steepness exists merely as an idea/assumption in the speaker's mind.

3.5.3 Affix Tables for Configuration, Affiliation, Perspective, Extension and Essence

Tables 5(a) through 5(f) below indicate all the affix values of **Ca**, the synthetic affix which indicates which of the nine Configurations, four Affiliations, four Perspectives, and six Extensions are applied to a particular stem.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/VL)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	('Cb))	**[tone]**	**[stress]**
Phase + Sanction	Valence	Validation OR Aspect	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Configuration + Affiliation + Perspective + Extension + Essence	Deriv. Suffix	Context + Format	Bias	Version	Designa-tion + Relation

Tables 5(a)-(l):
Ca Configuration/Affiliation/Perspective/Extension Affixes for Formatives

ESSENCE & EXTENSION	PERSPECTIVE	AFFILIATION	CONFIGURATION								
			UNI	DPX	DCT	AGG	SEG	CPN	COH	CST	MLT
NRM + DEL	M	CSL	l	ll	tļ	ļ	ļļ	řļ	sk	šk	kţ
		ASO	r	rr	lļ	rl	rļ	řl	st	št	kç
		VAR	m	mm	lm	rm	mļ	řm	sp	šp	pţ
		COA	n	nn	ln	r n	nļ	ř n	sq	šq	qţ
	U	CSL	t	ļt	lt	rt	nt	řt	ňt	ňd	çt
		ASO	k	ļk	lk	rk	ňk	řk	kt	xt	çk
		VAR	p	ļp	lp	rp	mp	řp	pt	ft	çp
		COA	q	ļq	lq	rq	ňq	řq	qt	xht	çq
	N	CSL	ţ	ţţ	lţ	rţ	nţ	řţ	sţ	šţ	tf
		ASO	x	xx	lx	rx	ňx	mx	sx	šx	kf
		VAR	f	ff	lf	rf	mf	řf	sf	šf	pf
		COA	xh	xxh	lxh	rxh	ňxh	mxh	sxh	šxh	qf
	A	CSL	c	cc	lc	rc	ns	řc	sc	fk	fq
		ASO	č	čč	lč	rč	nš	řč	šč	ţk	ţq
		VAR	ż	żż	lż	rż	nz	řż	ţf	ţs	ţc
		COA	j	jj	lj	rj	nž	řj	fţ	ţš	ţč

ESSENCE & EXTENSION	PERSPECTIVE	AFFILIATION	CONFIGURATION								
			UNI	DPX	DCT	AGG	SEG	CPN	COH	CST	MLT
NRM + PRX	M	CSL	s	ss	ls	rs	fs	řs	ňs	ms	mss
		ASO	š	šš	lš	rš	fš	řš	ňš	mš	mšš
		VAR	z	zz	lz	rz	vz	řz	ňz	mz	mzz
		COA	ž	žž	lž	rž	vž	řž	ňž	mž	mžž
	U	CSL	d	dv	ld	rd	nd	řd	md	zd	žd
		ASO	g	gv	lg	rg	ňg	řg	ňkf	zg	žg
		VAR	b	bv	lb	rb	mb	řb	ntf	zb	žb
		COA	ň	ňň	ňç	rň	ňv	ř ň	ňf	řtf	řkf
	N	CSL	dh	ddh	ldh	rdh	ndh	řdh	mdh	ţx	ţxh
		ASO	ç	çç	lç	rç	nç	řç	mç	fx	fxh
		VAR	v	w	lv	rv	mv	řv	ndv	xf	xţ
		COA	ř	řř	rbv	rdv	rgv	řxh	mţ	xhf	xhţ
	A	CSL	ck	čk	ps	ks	gd	psk	pšk	ksk	kšk
		ASO	ct	čt	pš	kš	bd	pst	pšt	tx	txh
		VAR	cp	čp	bz	gz	pç	ksp	kšp	px	pxh
		COA	cq	čq	bž	gž	řqf	kst	kšt	psq	pšq

ESSENCE & EXTENSION	PERSPECTIVE	AFFILIATION	CONFIGURATION								
			UNI	DPX	DCT	AGG	SEG	CPN	COH	CST	MLT
	M	CSL	mt	mt'	sk^h	sk'	mt^h	pst'	pst^h	pšt'	pšt^h
		ASO	mk	mk'	st^h	st'	mk^h	kst'	kst^h	kšt'	kšt^h
		VAR	ňp	ňp'	sp^h	sp'	ňp^h	psk'	psk^h	pšk'	pšk^h
		COA	mq	mq'	sq^h	sq'	mq^h	ksp'	ksp^h	kšp'	kšp^h
		CSL	pk	pk'	šk^h	šk'	pk^h	fk'	fk^h	psq'	psq^h
		ASO	tk	tk'	št^h	št'	tk^h	ţk'	tk^h	ksk'	ksk^h

NRM + ICP	U	VAR	tp	tp’	šp^h	šp’	tp^h	ţp’	ţp^h	pšq’	pšq^h
		COA	kp	kp’	šq^h	šq’	kp^h	xp’	xp^h	kšk’	kšk^h
	N	CSL	pq	pq’	fg	bg	pq^h	vg	fp	fq’	fq^h
		ASO	tq	tq’	ţg	dg	tq^h	dhg	vd	ţq’	ţq^h
		VAR	qp	qp’	xhp	xp	sc^h	sc’	ňqf	gb	kkç/kçç
		COA	pļ	tç	xhp’	ţp	ščh^h	šč’	vb	dhz	ppç/pçç
	A	CSL	fst	fc’	fc	lfs	xc’	ţc’	ltf	fst’	fst^h
		ASO	fšt	fč’	fč	lfš	xč’	ţč’	lkf	fšt’	fšt^h
		VAR	fsk	fc^h	rfs	fsq	xc^h	ţc^h	xhp^h	fsk’	fsk^h
		COA	fšk	fč^h	rfš	fšq	xč^h	ţč^h	qp^h	fšk’	fšk^h

[corrections made to the following table in September 2011 marked in red]

ESSENCE & EXTENSION	PERSPECTIVE	AFFILIATION	CONFIGURATION								
			UNI	DPX	DCT	AGG	SEG	CPN	COH	CST	MLT
NRM + TRM	M	CSL	t’	ļt’	lt’	rt’	nt’	řt’	ţsk’	kt’	ňt’
		ASO	k’	ļk’	lk’	rk’	ňk’	řk’	ţšk’	ft’	xt’
		VAR	p’	ļp’	lp’	rp’	mp’	řp’	fsq’	pt’	fp’
		COA	q’	ļq’	lq’	rq’	ňq’	řq’	fšq’	xht’	qt’
	U	CSL	t^h	ļt^h	lt^h	rt^h	nt^h	řt^h	ţsk^h	kt^h	ňt^h
		ASO	k^h	ļk^h	lk^h	rk^h	ňk^h	řk^h	ţšk^h	ft^h	xt^h
		VAR	p^h	ļp^h	lp^h	rp^h	mp^h	řp^h	fsq^h	pt^h	fp^h
		COA	q^h	ļq^h	lq^h	rq^h	ňq^h	řq^h	fšq^h	xht^h	qt^h
	N	CSL	c’	cc’	lc’	rc’	nc’	řc’	mc’	ňc’	çt’
		ASO	č’	čč’	lč’	rč’	nč’	řč’	mč’	ňč’	çk’
		VAR	c^h	cc^h	lc^h	rc^h	nc^h	řc^h	mc^h	ňc^h	çp’
		COA	č^h	čč^h	lč^h	rč^h	nč^h	čř^h	mč^h	ňč^h	çq’
	A	CSL	pps/pss	rps	lps	rbz	lbz	řps	řbz	ňss	çt^h
		ASO	ppš/pšš	rpš	lpš	rbž	lbž	řpš	řbž	ňšš	çk^h

		VAR	kks/ kss	rks	lks	rgz	lgz	řks	řgz	ňzz	çp^h
		COA	kkš/kšš	rkš	lkš	rgž	lgž	řkš	řgž	ňžž	çq^h

ESSENCE & EXTENSION	PERSPECTIVE	AFFILIATION	CONFIGURATION								
			UNI	DPX	DCT	AGG	SEG	CPN	COH	CST	MLT
NRM + DPL	M	CSL	kc	lkç	lsk	rsk	nsk	řsk	msk	ňsk	ssk
		ASO	żd	lţs	lst	rst	nst	řst	mst	ňst	sst
		VAR	pc	bbz/bzz	lsp	rsp	nsp	řsp	msp	ňsp	ssp
		COA	qc	ggz/gzz	lsq	rsq	nsq	řsq	msq	ňsq	ssq
	U	CSL	kč	rçç	lšk	ršk	nšk	řšk	mšk	ňšk	ššk
		ASO	jd	lţš	lšt	ršt	nšt	řšt	mšt	ňšt	ššt
		VAR	pč	bbž/bžž	lšp	ršp	nšp	řšp	mšp	ňšp	ššp
		COA	qč	ggž/gžž	lšq	ršq	nšq	řšq	mšq	ňšq	ššq
	N	CSL	bdh	xpf	lvz	rvz	rbdh	řpţ	lpf	rpf	bzd
		ASO	gdh	ňdh	lvž	rvž	rgdh	řkţ	lpç	rpç	bžd
		VAR	ţt	dhd	ldhz	rţs	rqţ	řqţ	ňkç	řpf	gzd
		COA	db	ttç/tçç	ldhž	rţš	rkç	řkç	mpç	řpç	gžd
	A	CSL	bż	rpss	lzb	rzb	nzb	řzb	mzb	řpss	gzb
		ASO	gż	rkss	lžb	ržb	nžb	řžb	mžb	řkss	gžb
		VAR	bj	rpšš	lzg	rzg	nzg	řzg	mzg	řpšš	bzg
		COA	gj	rkšš	lžg	ržg	nžg	řžg	mžg	řkšš	bžg

ESSENCE & EXTENSION	PERSPECTIVE	AFFILIATION	CONFIGURATION								
			UNI	DPX	DCT	AGG	SEG	CPN	COH	CST	MLT
	M	CSL	kc’	ck’	lsk’	rsk’	nsk’	řsk’	msk’	ňsk’	ssk’
		ASO	żb	ct’	lst’	rst’	nst’	řst’	mst’	ňst’	sst’
		VAR	pc’	cp’	lsp’	rsp’	nsp’	řsp’	msp’	ňsp’	ssp’
		COA	qc’	cq’	lsq’	rsq’	nsq’	řsq’	msq’	ňsq’	ssq’
		CSL	kč’	čk’	lšk’	ršk’	nšk’	řšk’	mšk’	ňšk’	ššk’
		ASO	jb	čt’	lšt’	ršt’	nšt’	řšt’	mšt’	ňšt’	ššt’

NRM **+** **GRA**	**U**										
		VAR	pč’	čp’	lšp’	ršp’	nšp’	řšp’	mšp’	ňšp’	ššp’
		COA	qč’	čq’	lšq’	ršq’	nšq’	řšq’	mšq’	ňšq’	ššq’
	N	**CSL**	kc^h	ck^h	lsk^h	rsk^h	nsk^h	řsk^h	msk^h	ňsk^h	ssk^h
		ASO	żg	ct^h	lst^h	rst^h	nst^h	řst^h	mst^h	ňst^h	sst^h
		VAR	pc^h	cp^h	lsp^h	rsp^h	nsp^h	řsp^h	msp^h	ňsp^h	ssp^h
		COA	qc^h	cq^h	lsq^h	rsq^h	nsq^h	řsq^h	msq^h	ňsq^h	ssq^h
	A	**CSL**	kč^h	čk^h	lšk^h	ršk^h	nšk^h	řšk^h	mšk^h	ňšk^h	ššk^h
		ASO	jg	čt^h	lšt^h	ršt^h	nšt^h	řšt^h	mšt^h	ňšt^h	ššt^h
		VAR	pč^h	čp^h	lšp^h	ršp^h	nšp^h	řšp^h	mšp^h	ňšp^h	ššp^h
		COA	qč^h	čq^h	lšq^h	ršq^h	nšq^h	řšq^h	mšq^h	ňšq^h	ššq^h

ESSENCE & EXTENSION	**PERSPECTIVE**	**AFFILIATION**	**CONFIGURATION**								
			UNI	**DPX**	**DCT**	**AGG**	**SEG**	**CPN**	**COH**	**CST**	**MLT**
RPV **+** **DEL**	**M**	**CSL**	tt	tt’	tt^h	lpt’	rpt’	řpt’	lpt^h	rpt^h	řpt^h
		ASO	kk	kk’	kk^h	lkt’	rkt’	řkt’	lkt^h	rkt^h	řkt^h
		VAR	pp	pp’	pp^h	lpk’	rpk’	řpk’	lpk^h	rpk^h	řpk^h
		COA	qq	qq’	qq^h	ltk’	rtk’	řtk’	ltk^h	rtk^h	řtk^h
	U	**CSL**	dd	nçw	pçw	lft’	rft’	řft’	lft^h	rft^h	řft^h
		ASO	gg	ňçw	kfw	lxt’	rxt’	řxt’	lxt^h	rxt^h	řxt^h
		VAR	bb	mçw	pfw	lfk’	rfk’	řfk’	lfk^h	rfk^h	řfk^h
		COA	cf	čf	qfw	lţk’	rţk’	řţk’	lţk^h	rţk^h	řţk^h
	N	**CSL**	ţw	dhw	lţw	rţw	mţw	řţw	nţw	ldhw	rdhw
		ASO	xw	ňw	lxw	rxw	mxw	řxw	ňxw	lňw	rňw
		VAR	fw	vw	lfw	rfw	ňfw	řfw	mfw	lvw	rvw
		COA	xhw	çw	lxhw	rxhw	mxhw	tçw	ňxhw	lçw	rçw
	A	**CSL**	sw	cw	lsw	rsw	msw	řsw	nsw	ňsw	ssw
		ASO	šw	čw	lšw	ršw	mšw	řšw	nšw	ňšw	ššw
		VAR	zw	żw	lzw	rzw	mzw	řzw	nzw	ňzw	zzw
		COA	žw	jw	lžw	ržw	mžw	řžw	nžw	ňžw	žžw

ESSENCE & EXTENSION	**PERSPECTIVE**	**AFFILIATION**	**CONFIGURATION**								
			UNI	**DPX**	**DCT**	**AGG**	**SEG**	**CPN**	**COH**	**CST**	**MLT**
RPV **+** **PRX**	**M**	**CSL**	tw	ttw	t^hw	t’w	tt’w	tt^hw	ltw	rtw	ntw
		ASO	kw	kkw	k^hw	k’w	kk’w	kk^hw	lkw	rkw	ňkw
		VAR	pw	ppw	p^hw	p’w	pp’w	pp^hw	lpw	rpw	mpw
		COA	qw	qqw	q^hw	q’w	qq’w	qq^hw	lqw	rqw	ňqw
	U	**CSL**	ty	tty	lty	ţy	nty	řty	rty	pty	tky
		ASO	ky	kky	lky	ży	ňky	řky	rky	kty	kpy
		VAR	py	ppy	lpy	fy	npy	řpy	rpy	tpy	pky
		COA	my	fty	ptw	mw	ftw	ptr	ftr	pkw	fkw
	N	**CSL**	dw	ddw	ldw	tv	ndw	řdw	bdw	dgw	rdw
		ASO	gw	ggw	lgw	kv	ňgw	řgw	gdw	gbw	rgw
		VAR	bw	bbw	lbw	pv	mbw	řbw	dbw	bgw	rbw
		COA	lw	ly	ry	rw	ļw	řy	tļw	řw	lř
	A	**CSL**	dy	ddy	ldy	dhy	ndy	řdy	rdy	bdy	dgy
		ASO	gy	ggy	lgy	jy	ňgy	řgy	rgy	gdy	gby
		VAR	by	bby	lby	vy	mby	řby	rby	dby	bgy
		COA	ny	xty	ktw	nw	xtw	ktr	xtr	tkw	ţkw

ESSENCE & EXTENSION	**PERSPECTIVE**	**AFFILIATION**	**CONFIGURATION**								
			UNI	**DPX**	**DCT**	**AGG**	**SEG**	**CPN**	**COH**	**CST**	**MLT**
	M	**CSL**	tl	ttl	ltl	rtl	ntl	řtl	mtl	ļtl	kçw
		ASO	kl	kkl	lkl	rkl	ňkl	řkl	mkl	ļkl	c’w
		VAR	pl	ppl	lpl	rpl	mpl	řpl	ňpl	ļpl	tfw
		COA	ql	qql	lql	rql	ňql	řql	mql	ļql	č’w
		CSL									

RPV + ICP	U	CSL	dl	ddl	ldl	rdl	ndl	řdl	bdl	dgl	vbl
		ASO	gl	ggl	lgl	rgl	ňgl	řgl	gdl	gbl	vgl
		VAR	bl	bbl	lbl	rbl	mbl	řbl	dbl	bgl	vdl
		COA	ml	mř	ňl	nl	ţř	fř	př	tř	lr
	N	CSL	skl	ckl	ckw	skw	sskw	çkw	sk’w	ck’w	sskl
		ASO	stl	ctl	ctw	stw	sstw	çtw	st’w	ct’w	sstl
		VAR	spl	cpl	cpw	spw	sspw	çpw	sp’w	cp’w	sspl
		COA	sql	cql	cqw	sqw	ssqw	çqw	sq’w	cq’w	ssql
	A	CSL	škl	čkl	čkw	škw	šškw	xxw	šk’w	čk’w	šškl
		ASO	štl	čtl	čtw	štw	šštw	ţţw	št’w	čt’w	šštl
		VAR	špl	čpl	čpw	špw	ššpw	ffw	šp’w	čp’w	ššpl
		COA	šql	čql	čqw	šqw	ššqw	xxhw	šq’w	čq’w	ššql

ESSENCE & EXTENSION	PERSPECTIVE	AFFILIATION	CONFIGURATION								
			UNI	DPX	DCT	AGG	SEG	CPN	COH	CST	MLT
RPV + TRM	M	CSL	tr	ttr	ltr	rtr	ntr	řtr	mtr	ļtr	rtn
		ASO	kr	kkr	lkr	rkr	ňkr	řkr	mkr	ļkr	rkn
		VAR	pr	ppr	lpr	rpr	mpr	řpr	ňpr	ļpr	rpn
		COA	qr	qqr	lqr	rqr	ňqr	řqr	mqr	ļqr	rqn
	U	CSL	dr	ddr	ldr	rdr	ndr	řdr	bdr	dgr	vbr
		ASO	gr	ggr	lgr	rgr	ňgr	řgr	gdr	gbr	vgr
		VAR	br	bbr	lbr	rbr	mbr	řbr	dbr	bgr	vdr
		COA	mr	nř	ňr	nr	dhř	vř	bř	dř	gř
	N	CSL	skr	ckr	cky	sky	ssky	č^{h}w	sk^{h}w	ck^{h}w	sskr
		ASO	str	ctr	cty	sty	ssty	c^{h}y	st^{h}w	ct^{h}w	sstr
		VAR	spr	cpr	cpy	spy	sspy	c^{h}w	sp^{h}w	cp^{h}w	sspr
		COA	sqr	cqr	c’y	cy	çr	č^{h}y	sq^{h}w	cq^{h}w	ssqr
	A	CSL	škr	čkr	čky	šky	šžky	ļkw	šk^{h}w	čk^{h}w	šškr
		ASO	štr	čtr	čty	šty	ššty	ļtw	št^{h}w	čt^{h}w	šštr
		VAR	špr	čpr	čpy	špy	ššpy	ļpw	šp^{h}w	čp^{h}w	ššpr
		COA	šqr	čqr	č’y	čy	çř	ļqw	šq^{h}w	čq^{h}w	ššqr

[corrections made in September 2011 to the following table marked in red]

ESSENCE & EXTENSION	PERSPECTIVE	AFFILIATION	CONFIGURATION								
			UNI	DPX	DCT	AGG	SEG	CPN	COH	CST	MLT
RPV + DPL	M	CSL	sl	ssl	lsl	rsl	msl	řsl	nsl	ňsl	ţst
		ASO	šl	ššl	lšl	ršl	mšl	řšl	nšl	ňšl	ţšt
		VAR	zl	zzl	lzl	rzl	mzl	řzl	nzl	ňzl	ţsp
		COA	žl	žžl	lžl	ržl	mžl	řžl	nžl	ňžl	ţšp
	U	CSL	fl	ffl	lfl	rfl	mfl	řfl	fxl	ňfl	pxl
		ASO	ţl	ţţl	lţl	rţl	nţl	řţl	ţxl	mţl	txl
		VAR	xl	xxl	lxl	rxl	ňxl	řxl	xfl	mxl	xţl
		COA	xhl	xxhl	lxhl	rxhl	ňxhl	qtl	xhfl	mxhl	xhţl
	N	CSL	vl	vvl	lvl	rvl	mvl	řvl	lpţ	lkţ	mpļ
		ASO	dhl	ddhl	ldhl	rdhl	ndhl	řdhl	cl	čl	ntļ
		VAR	sv	sř	ksw	sxw	lsř	rsř	fsw	řsř	bzw
		COA	zv	zř	psw	sxhw	lzř	rzř	sfw	řzř	gzw
	A	CSL	sm	sy	cm	zm	żm	çm	bm	dm	gm
		ASO	šm	šy	čm	žm	jm	ļm	vm	dhm	kř
		VAR	sn	zy	cn	zn	żn	çn	bn	dn	gn
		COA	šn	žy	čn	žn	jn	ļn	vn	dhn	ňř

[corrections made in September 2011 to the following table marked in red]

ESSENCE & EXTENSION	PERSPECTIVE	AFFILIATION	CONFIGURATION								
			UNI	DPX	DCT	AGG	SEG	CPN	COH	CST	MLT
	M	CSL	sr	ssr	lsr	rsr	msr	řsr	nsr	ňsr	ţsk
		ASO	šr	ššr	lšr	ršr	mšr	řšr	nšr	ňšr	ţšk
		VAR	zr	zzr	lzr	rzr	mzr	řzr	nzr	ňzr	ţsq
		COA	žr	žžr	lžr	ržr	mžr	řžr	nžr	ňžr	ţšq
		CSL	fr	ffr	lfr	rfr	mfr	řfr	fxr	ňfr	pxr

RPV + GRA	U	ASO	ţr	ţţr	lţr	rţr	nţr	řţr	ţxr	mţr	txr
		VAR	xr	xxr	lxr	rxr	ňxr	řxr	xfr	mxr	xţr
		COA	xhr	xxhr	lxhr	rxhr	ňxhr	qtr	xhfr	mxhr	xhţr
	N	CSL	vr	wr	lvr	rvr	mvr	řvr	rpţ	rkţ	mpř
		ASO	dhr	ddhr	ldhr	rdhr	ndhr	řdhr	cr	čr	ntř
		VAR	šv	šř	kšw	šxw	lšř	ršř	fšw	řšř	bžw
		COA	žv	žř	pšw	šxhw	lžř	ržř	šfw	řžř	gžw
	A	CSL	tm	ţm	ţn	tn	rsm	rsn	sň	rsň	nm
		ASO	km	xm	xn	kn	rzm	rzn	zň	rzň	ňm
		VAR	pm	fm	fn	pn	ršm	ršn	šň	ršň	mn
		COA	qm	xhm	xhn	qn	ržm	ržn	žň	ržň	ňn

3.5.4 Additional Example of Configuration, Affiliation, Perspective, Extension and Essence

ekšá- *'clown'* **egw-** *'running stride'* →

Egwapsk^h ekšúlļ.
DYN-'running stride'-NRM/ICP/M/VAR/COH-IFL STA-'clown'-IND-NRM/DEL/M/ASO/DCT-FML
The group of clowns begin stumbling as they run.

3.6 CONTEXT

Context is yet another morphological category with no equivalent in other languages. It indicates what tangible or intangible features or aspects of a formative are being psychologically implied in any given utterance. There is no way to show this in translation other than by paraphrase. There are four contexts: the EXISTENTIAL, the FUNCTIONAL, the REPRESENTATIONAL, and the AMALGAMATE, marked by a vocalic suffix **Vf** which also conveys verbal Format (the category of Format will be analyzed in Section 6.4). Table 6 below shows the values for this suffix.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	V$_L$)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/V$_L$)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	('Cb))	[tone]	[stress]
Phase + Sanction	Valence	Validation OR Aspect	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designa-tion + Relation

Table 6: Word-final Vf-suffix: 4 contexts x 9 formats

	FORMAT (see Sec. 6.4)									
Context↓	**(none)**	**SCH**	**ISR**	**ATH**	**RSL**	**SBQ**	**CCM**	**OBJ**	**PRT**	**AFT**
EXISTENTIAL	(a)	o	ai	â	au	ëi	oa	ea	aì	aù
FUNCTIONAL	i	ö	ui	ae	iu	ëu	oe	ia / ua	uì	iù
REPRESENTATIONAL	e	ü / öe	ei	ê	eu	öi	eo	ie / ue	eì	eù
AMALGAMATE	u	öa	oi	ô	ou	öu	iö / uö	io / uo	oì	où

The four Contexts are explained below and illustrated via example Ithkuil translations of the English sentence *The orchestra is playing*.

3.6.1 EXS The Existential

The EXISTENTIAL context focuses on those features of a noun or verb which are ontologically objective, i.e., those that exist irrespective of any observers, opinions, interpretations, beliefs or attitudes. Similarly excluded from consideration in the EXISTENTIAL is any notion of a noun's use, function, role or benefit. The EXISTENTIAL serves only to point out the mere existence of a noun as a tangible, objective entity under discussion. It is thus used to offer mere identification of a noun or verb.

For example, consider the sentence *A cat ran past the doorway*. If the Ithkuil words corresponding to *cat*, *run*, and *doorway* are in the EXISTENTIAL, then the sentence merely describes an objective scene. No implication is intended concerning the subjective nature of the two entities or the action involved. The sentence is merely stating that two entities currently have a certain dynamic spatial relationship to each other; those two entities happen to be a cat and a doorway, and the running merely conveys the nature of the spatial relationship.

Ilmašqôn.
DYN-'play music'-NRM/DEL/M/COA/CST-AGC$_2$/7-EXS-IFL
'The orchestra is playing.' [neutral description of event]

3.6.2 FNC The Functional

The FUNCTIONAL context focuses on those features of a formative that are defined socially by ideas, attitudes, beliefs, opinions, convention, cultural status, use, function, benefit, etc. It serves to identify not what a noun existentially is, but to show that the noun has specific (and subjective) contextual meaning, relevance or purpose.

For example, in our previous sentence *A cat ran past the doorway*, if we now place the cat, doorway, and act of running each into the FUNCTIONAL, the 'cat' no longer simply identifies a participant, it makes its being a cat (as opposed to say, a dog) significant, e.g., because the speaker may fear cats, or because the cat could get into the room and ruin the furniture, or because cats are associated with mystery, or because a neighbor has been looking for a lost cat, etc. The 'doorway' now conveys its purpose as an entry, reinforcing what the cat may do upon entering. Likewise, the verb 'ran' in the FUNCTIONAL now implies the furtive nature of the cat. Example:

Ilmašqôni.
DYN-'play music'-NRM/DEL/M/COA/CST-AGC$_2$/7-FNC-IFL
'The orchestra is playing.' [focus on the personal meaning/importance of the event]

3.6.3 RPS The Representational

The REPRESENTATIONAL context focuses on a formative as a symbol, metaphor, or metonym*, in that it indicates that the formative is serving as a representation or substitute for some other concept or entity which is abstractly associated with it. For example, the metaphorical connotations of the English sentence *That pinstripe-suited dog is checking out a kitty*, can be equally conveyed in Ithkuil by inflecting the words for 'dog and 'kitty' into the REPRESENTATIONAL context. The REPRESENTATIONAL is one of several ways that Ithkuil overtly renders all metaphorical, symbolic, or metonymic usages (from a grammatical standpoint).

* Metonymy is the use of a word or phrase of one type to refer to an associated word or phrase of a different type (usually a person), such as place-for-person in 'The orders came from *the White House*,' object-for-person in 'Tell the cook *the ham and cheese* wants fries with his order' or phrase-for-person as in '*You know who*

‘The orders came from *the White House*,’ object-for-person in ‘Tell the cook *the ham-and-cheese* wants fries with his order’ or phrase-for-person as in ‘*You-know-who* just showed up.’

Ilmašqône.
DYN-‘play music’-NRM/DEL/M/COA/CST-AGC$_2$/7-RPS-IFL
‘The orchestra is playing.’ [connotes that sentence is a metaphor, e.g., ‘life as a symphony’]

3.6.4 AMG The Amalgamative

The AMALGAMATE context is the most abstract and difficult to understand from a Western linguistic perspective. It focuses on the systemic, holistic, gestalt-like, componential nature of a formative, implying that its objective and subjective totality is derived synergistically from (or as an emergent property of) the interrelationships between all of its parts, not just in terms of a static momentary appraisal, but in consideration of the entire developmental history of the noun and any interactions and relationships it has (whether past, present or potential) within the larger context of the world. Its use indicates the speaker is inviting the hearer to subjectively consider all the subjective wonder, emotional nuances, psychological ramifications and/or philosophical implications associated with the noun’s existence, purpose, or function, as being a world unto itself, intrinsically interconnected with the wider world beyond it on many levels. Thus the AMALGAMATE version of our sentence *The cat ran past the doorway* would take on quite melodramatic implications, with the cat being representative of everything about cats and all they stand for, the doorway as being representative of the nature of doorways as portals of change, thresholds of departure, and the juncture of past and the future, while the act of running becomes representative of flight from enemies, rapidity of movement, the body at maximum energy expenditure, etc.

Ilmašqônu.
DYN-‘play music’-NRM/DEL/M/COA/CST-AGC$_2$/7-AMG-IFL
‘The orchestra is playing.’ [connotes a focus on the emotional impact plus cultural significance of the event]

3.7 DESIGNATION

Designation is a somewhat subjective category, with no equivalent in Western languages. It refers to a two-fold distinction in a formative regarding its contextual status, authority, permanence, or extra-contextual relevance. The two Designations are the INFORMAL and the FORMAL, shown by the formative’s syllabic stress (in conjunction with the verbal category of Relation which will be discussed in Section 5.4).

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/VL)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	(’Cb))	**[tone]**	**[stress]**
Phase + Sanction (+ Illocution)	Valence	Validation OR Aspect	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction (+ Illocution)	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	**Designa-tion +** Relation

The two Designations are explained below.

3.7.1 IFL The Informal

The INFORMAL designation is shown by either penultimate (second-to-last) or antepenultimate (third-from last) syllabic stress on the formative, depending on the formative’s Relation (see Section 5.4 on Relation).

The INFORMAL designation indicates that the noun or verb in question does not exist in a necessarily permanent state, or is to be considered only for the duration of the context in which it is spoken, with any lasting effect, influence or permanency beyond the context being either absent, unknown or irrelevant. It is best illustrated by comparative examples with the FORMAL designation in the section immediately below.

3.7.2 FML The Formal

The FORMAL designation is shown by either ultimate (final) or pre-antepenultimate (fourth-from last) syllabic stress on the formative, depending on the formative’s Relation (see Section 5.4 on Relation).

The FORMAL designation imparts a sense of permanency and/or authority, raising the noun or verb to a more definitive, formal or institutional manifestation of itself, or stressing this authoritative/definitive nature if the meaning already includes it. For example, stems translatable as ‘symbol,’ ‘eat,’ ‘thought,’ and ‘a model’ in the INFORMAL would become ‘icon,’ ‘dine,’ ‘idea,’ and ‘archetype’ in the FORMAL.

The FORMAL achieves several subtle purposes from a lexico-semantic standpoint. While some Ithkuil words would translate the same in English no matter which designation (e.g., *to hurt, to float, breath, to fall, shade, sleep, cough*), many stems would have different translations in English depending on their designation. For example, the stem **eq-** with the affiliated meanings *person → group → gathering → crowd → throng*, etc. in the INFORMAL designation would change to the following series of approximate translations when placed in the FORMAL designation: *official → team → association/congregation → assembly → masses*, etc.

Further examples of lexical shifts in translation due to INFORMAL → FORMAL designation are listed below:

to grow something → to cultivate	*wander → travel*
obtain/get → procure/requisition	*lake → reservoir*
(natural) holder → container	*see → observe*
to create → construct/build	*heap → pile*
animal → domesticated animal	*a thought → an idea*
natural environment →“man-made” environment	*awareness → consciousness*
[natural] exchange → trade/commerce	*house → home*
assortment of animals → zoo collection	*grouping → set*
to group/gather → collect	*wall → barrier*
get some exercise → to work out	*placidity → peace*
problem situation → crisis	*to populate → to settle*

As can be seen from the above list, the exact interpretation of Designation for each word-root is specific to each word-root, depending on its associated semantic context.

3.7.3 Examples of Designation in Use

INFORMAL		**FORMAL**
klal *‘flow of water; to flow’*	→	**aklál** *‘river; to flow as a river ’*
dyal *‘sensation/feeling; to sense (affective)’*	→	**adyál** *‘sensation/feeling (volitional/deliberate); to examine via the senses’*
stal *‘comparison; to compare/contrast’*	→	**astál** *‘measure(ment)’*

3.8 NOTE ON MORPHO-PHONOLOGICAL AGREEMENT

In regard to the gender categories from other languages, Ithkuil has no distinctions of gender (e.g., masculine, feminine, neuter, etc.). There is no “agreement” or morpho-phonological concord of any kind between a noun and other words or morphological elements in a sentence, i.e., there is none of the required matching of masculine or feminine or singular/plural agreement between nouns, articles, and adjectives as found in most Western languages.

Proceed to Chapter 4: Case Morphology >>

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Ithkuil: A Philosophical Design for a Hypothetical Language

Chapter 4: Case Morphology

4.1 Semantic Role versus Positional Slot
4.2 Morpho-Phonological Markers for Case
4.3 The Transrelative Cases
4.4 The Possessive Cases
4.5 The Associative Cases
4.6 The Temporal Cases
4.7 The Spatial Cases
4.8 The Vocative

In this chapter, we analyze one additional morphological category: Case. Like the seven categories analyzed in the previous chapter, and unlike other languages, the category of Case applies to all formatives in Ithkuil, i.e., to both nouns and verbs alike. However, the syntactical context in which Case operates is sufficiently dissimilar for nouns and verbs to warrant separate analysis. In this chapter, we will analyze the case morphology of nouns alone. The use of Case with verbs will be analyzed in Section 5.2.

Anyone who has studied German, Latin, Russian, Classical Greek or Sanskrit, is familiar with the concept of Case. Case generally refers to a morphological scheme in which a noun, whether via internal mutation of its phonemes or via affixes, shows what grammatical "role" it plays in the phrase or sentence in which it appears. For example, in the English sentence *It was me she saw*, the use of the word 'she' as opposed to 'her' and the use of 'me' as opposed to 'I' distinguishes the subject of the sentence (the person seeing) from the object of the verb (the one being seen). Similarly, in the German sentence *Der Bruder des Knaben sah den Mann* (= 'The boy's brother saw the man'), the words 'der', 'des' and 'den' distinguish the subject of the sentence 'brother' (nominative case) from the possessor 'boy' (genitive case) from the object 'man' (accusative case).

The concept of "case" can extend far beyond the notions of subject, object and possessor. Depending on the particular language, there may be noun cases which specify the location or position of a noun, whether a noun accompanies another or derives from another or is the recipient of another. In general, noun cases in those languages which rely upon them often substitute for what in English is accomplished using prepositions or prepositional phrases. The process of adding affixes or changing the phonetic structure of a word in order to show a noun in a particular case is known as declining a noun, and the various permutations of a noun into its cases are known as its declensions.

There are 96 cases in Ithkuil, comprising 72 main cases, and 24 Comparison cases. The Comparison cases serve specialized functions associated with the verbal category called **Level** and are discussed separately in Section 6.2.4. The 72 main cases are dealt with in this chapter.

4.1 SEMANTIC ROLE VERSUS POSITIONAL SLOT

In most languages, case operates at the surface structure level of language to signify arbitrary grammatical relations such as subject, direct object, indirect object. The deeper level of "semantic role" is ignored in terms of morphological designations. The notion of semantic role can be illustrated by the following set of sentences:

(1a) *John opened the door with the key.*
(1b) *The key opened the door.*
(1c) *The wind opened the door.*
(1d) *The door opened.*

In each of these sentences case is assigned based on "slot", i.e., the position of the nouns relative to the verb, irrespective of their semantic roles. Thus the "subjects" of the sentences are, respectively, *John*, *the key*, *the wind*, and *the door*. Yet it can be seen that, semantically speaking, these four sentences are interrelated in a causal way. Specifically, Sentence (1b) results directly from sentence (1a), and sentence (1d) results directly from either (1b) or (1c). We see that the case of the noun 'key' in sentence (1a) is prepositional, while in sentence (1b) it is the subject. Yet, the key plays the same semantic role in both sentences: the physical instrument by which the act of opening is accomplished. As for the noun 'door,' it is marked as a direct object in the first three sentences and as a subject in the fourth, even though its semantic role in all four sentences never changes, i.e., it is the noun which undergoes a change in its state as a result of the act of opening. The noun 'John' in sentence (1a) is marked as a subject, the same case as 'key' in (1b), the 'wind' in (1c) and the 'door' in (1d), yet the semantic role of 'John' is entirely different than the role of 'key' in (1b) and different again from 'door' in (1c), i.e., John is acting as the conscious, deliberate initiator of the act of opening. Finally, the noun 'wind' in (1c), while marked as a subject, operates in yet another semantic role distinct from the subjects of the other sentences, i.e., an inanimate, blind force of nature which, while being the underlying cause of the act of opening, can make no conscious or willed choice to initiate such action.

4.1.1 Case as Indicator of Semantic Role

The case structures of Western languages mark positional slot (i.e., grammatical relations) only, and have no overt way to indicate semantic role, thus providing no way of showing the intuitive causal relationship between sets of sentences like those above. In Ithkuil, however, the case of a noun is based on its underlying semantic role, not its syntactic position in the sentence relative to the verb. These semantic roles reflect a more fundamental or primary level of language irrespective of the surface case marking of nouns in other languages. Thus Ithkuil noun declension more accurately reflects the underlying semantic function of nouns in sentences. Consequently, the Western grammatical notions of "subject" and "object" have little meaning or applicability in Ithkuil grammar.

The following semantic roles are marked by noun cases in Ithkuil. They correspond roughly to the "subjects" and "objects" of Western languages:

AGENT: The animate, (and usually conscious and deliberate) initiator of an act which results in another noun undergoing a consequent change in state or behavior, e.g., 'John' in Sentence (1a) above.

FORCE: An inanimate, unwilled cause of an act such as a force of nature like 'wind' in Sentence (1c) above.

INSTRUMENT: The noun which functions as the physical means or tool by which an act is initiated or performed, e.g., 'key' in Sentences (1a) and (1b) above.

PATIENT: The noun which undergoes a change in state or behavior as a result of an act initiated or caused by itself or by another noun, e.g., 'door' in all four sentences above.

4.1.2 Additional Semantic Roles

Additional semantic roles corresponding to subjects and objects in Western languages exist in Ithkuil as overt noun cases. These include the roles of ENABLER, EXPERIENCER, STIMULUS, RECIPIENT, and CONTENT, and are explained below using the following set of sentences as illustrations.

(2a) *Mary hits the children.*
(2b) *Mary entertains the children.*
(2c) *Mary sees the children.*
(2d) *Mary tells the children a story.*
(2e) *Mary wants children.*

Examining these five sentences, we notice that the noun Mary is in the subject slot in all of them and the children is the direct object (except in the fourth sentence), even though the semantic roles of both nouns are entirely different in each of these five sentences. Beginning with Sentence (2a) we see that Mary is an AGENT which tangibly causes injury or pain to the children who obviously function in the role of PATIENT. Thus (2a) is identical to sentence (1a) in terms of the roles portrayed by the subject and direct object.

In Sentence (2b) however, *Mary entertains the children*, there is a subtle distinction. At first we might consider Mary an agent who initiates a change in the children (i.e., the fact that they become entertained). But, in fact, the act of entertainment is not one whose result (enjoyment by the audience) can be guaranteed by the party doing the entertaining. In fact, the result of the act of entertainment is not Mary's to determine, but rather the children's, based on whether they "feel" a sense of enjoyment at experiencing Mary's act. And so, Mary is more like a patient here, not an agent, as she is undergoing a change in her state or behavior (she is performing an attempt to entertain) which she herself has chosen to initiate and undergo, yet the act has the potential to cause a resulting change in the children, the success of this motivation to be determined by the children, however, not Mary. Such a semantic role as Mary here is termed an ENABLER. And how do the children make the decision as to whether they are entertained or not (i.e., what is their semantic role?). Can the children deliberately or consciously choose to feel a sense of enjoyment, or are they not themselves unwilling "patients" to their own emotional reactions? In case grammar, a party such as the children who undergo an unwilled experience are termed EXPERIENCERS. Besides emotional reactions, such unwilled experiences include autonomic sensory perceptions (e.g., parties that see or hear because their eyes were open and pointed in a particular direction or who were within earshot of a sound), and autonomic bodily reactions or responses as well as proprioceptive sensations (e.g., coughing, sneezing, perspiring, feeling hot or cold, feeling pain, etc.).

This notion of EXPERIENCER is likewise illustrated by Sentence (2c) *Mary sees the children*, in which the verb 'see' denotes an automatic sensory experience, not a deliberately initiated action. In other words, it is the nature of the sense of sight to function automatically whenever a person is conscious and his/her eyes are open. The verb 'see' does not necessarily imply a conscious or deliberately willed action of "seeing" (as would be implied by the verb 'to look [at]'). Therefore, the "action" is automatic and uninitiated; it is, in fact, not an action at all, but rather an experiential state which the person doing the seeing undergoes. In other words, the person seeing is actually a kind of "patient," as it is he/she who undergoes the experience of (and physical or emotional reaction to) the particular sight. Such undergoers of sensory verbs and other unwilled states (e.g., emotional states or reactions, autonomic bodily reactions such as sneezing, physical states of sensation such as being hot or cold, etc.) are categorized in the role of EXPERIENCERS. And what of the children's role in sentence (2c)? Unlike the first three sentences, the children do not undergo any action. Certainly the process of "being seen" by Mary does not in itself cause a physical change or reaction of any kind in the entity being seen. Nor can the children be analyzed as "initiating" the act of sight, as they may be completely unaware that Mary is seeing them. As a result, the children's semantic role is merely that of STIMULUS, a neutral, unwitting originating reason for the experiential state being undergone by the other noun participant.

In Sentence (2d) *Mary tells the children a story*, Mary is a patient who initiates the action which she herself undergoes, the telling of a story. The children do not undergo an unwilled emotional, sensory, or bodily reaction here, but rather are the passive and more or less willing RECIPIENT of information, the role of an "indirect object" in Western languages. The story, on the other hand, is merely a non-participatory abstract referent, whose role is termed CONTENT.

The role of CONTENT also applies to the children in Sentence (2e) *Mary wants children*, where they function as the "object" of Mary's desire. Since no tangible action is occurring, nor are the children undergoing any result of change of state, nor need they be even aware of Mary's desire, they are, like the story in sentence (2d), merely non-participatory referents. As for Mary's role in (2e), the emotional state of desire, being unwilled, self-activating, and subjectively internal, creates a situation similar to an automatic sensory perception or autonomic body response; thus, Mary's role is again that of EXPERIENCER.

4.1.3 Argument Structure

In addition to case being based on semantic roles, Ithkuil differs in another important respect from natural languages in that it does not have a default argument structure for its verbal formatives. This is explained below.

The individual verbs of natural languages each have an implied argument structure, i.e., a pattern of how nouns (i.e., "arguments") interact with the particular verb and what formal role (from a morpho-semantic perspective) each of those nouns plays in relation to the verb. For example, the verb "hit" in English implies the existence of an agent (i.e., someone doing the hitting) and a patient (i.e., someone undergoing the effect/result of the hitting), as in "He hit the dog." A different argument structure is illustrated by the verb "give" which implies an agent doing the giving, a patient undergoing the receiving, and a noun functioning in the semantic role of content, i.e., the item being given/received.

The grammar of natural languages specifies the requirements of which arguments to a verb must be present for a sentence to be grammatical and which arguments are optional. This is illustrated, for example, in the following English sentences (ungrammatical sentences are preceded by an asterisk):

3a) Sam gave the girl a book.
3b) Sam gave a book.
3c) Sam gave.
3d) * Sam gave the girl. (Intended meaning: *Sam gave something to the girl.*)
3e) * Gave the girl a book. (Intended meaning: *The girl was given a book* or *Someone gave the girl a book*.)
3f) * Gave the girl. (Intended meaning: *The girl was given something*, or *Someone gave something to the girl.*)
3g) * Gave a book. (Intended meaning: *Someone gave a book*.)
3h) * Gave. (Intended meaning: *Someone did some giving*, or *Giving occurred*).

In sentence (3a), all three arguments to the verb "gave" are expressed, while in sentence (3b) the patient/recipient has been deleted. Sentence (3c) deletes both the patient/recipient and the CONTENT argument. In sentence (3d) however, when we try to delete the CONTENT argument of book while preserving the patient/recipient, the sentence requires syntactic restructuring into S*am gave [something] to the girl* in order to remain grammatical (the asterisk * in front of the sentence indicates it is ungrammatical). Likewise, sentences (3e), (3f), (3g) and (3h) are ungrammatical when we try to delete the agent, as well as either or both of the other two arguments as well, requiring paraphrasing to make the intended meaning grammatical).

Compare the above group of sentence containing the verb 'gave' with the sentences below featuring the verb 'broke':

4a) Tim broke the window with a hammer.
4b) Tim broke the window.
4c) The hammer broke the window.
4d) The window broke.
4e) *The hammer broke. (Intended meaning: *The hammer broke something*.)
4f) *Tim broke. (Intended meaning: *Tim broke something*, or *Tim did some breaking*.)

Notice how sentence (3c) above, *Sam gave*, is grammatical, but the similarly structured sentence (4f) *Tim broke* is not. Conversely, notice in comparing sentences (4a) and (4d) that the patient *window* is grammatical in both object and subject slots, but similarly placing the patient *girl* from sentence (3a) into subject slot gives the ungrammatical sentence **The girl gave* (with intended meaning: *The girl was given something* or *Someone gave the girl something*.)

Other examples of constraints on argument structure in English are illustrated as follows:

Bill cut the cake with a knife can be shortened to *Bill cut the cak*e, but the syntactically identical *She put the book on the shelf* cannot be shortened to **She put the book*.

Treatment healed my wounds can delete its agent to give *My wounds healed*, but the similar *Treatment cured my wounds* does not allow agent-deletion to **My wounds cured*.

As can be seen, languages such as English are very haphazard in the various constraints on argument structure applied to individual verbs. Sometimes it is possible to delete arguments but at other times doing so results in an ungrammatical sentence, even though a semantically equivalent paraphrase exists. Ithkuil has no such constraints on its argument structure. As long as a sentence makes sense semantically and the relationships between explicit or implied arguments and their verb can be determined or inferred, then the Ithkuil sentence will be grammatically permissible. This is possible because nouns in Ithkuil are marked for semantically-based case, as well as the fact that verbs are marked for Function, a category we will explore Section 5.1.

4.2 MORPHO-PHONOLOGICAL MARKERS FOR CASE

Case is shown in different ways in Ithkuil depending on whether the case is being manifested in conjunction with a formative or a personal reference adjunct (explained in Section 8.1). For formatives, the 72 primary cases are shown by one of 72 forms of the vocalic affix **Vc**.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	**VL)**	**Cg/Cs)**	**Vr**	**(Cx/Cv**	**Vp/VL)**	**Cr**	**Vc**	**Ci +Vi**	**Ca**	**VxC**	**(Vf**	**(’Cb))**	**[tone]**	**[stress]**
Phase + Sanction	Valence	Validation OR Aspect	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designa-tion

The particular **Vc** suffix-values are given in the Table 7 below. The names and function of each case are explained beginning in Section 4.3 below.

Table 7: Values for Vc by Case (for Cases 1 through 72. For **Vc** values for Cases 73 - 96 see Section 6.2.4)

1 OBL	a	**13 PRP**	î / û	**25 PUR**	e’	**37 CMM**	au	**49 AVR**	eu’	**61 ALP***	oi’V
2 IND	u	**14 GEN**	ê	**26 CSD**	o’	**38 COM**	eu	**50 CMP**	ou’	**62 INP***	ëi’V
3 ABS	e	**15 ATT**	ô	**27 ESS**	ea	**39 CNJ**	iu	**51 SML***	a’V	**63 EPS***	au’V
4 ERG	o	**16 PDC**	ëi	**28 ASI**	eo	**40 UTL**	ou	**52 ASS***	e’V	**64 PLM***	eu’V
5 EFF	ö	**17 ITP**	öi	**29 FUN**	eö	**41 ABE**	ëu	**53 CNR***	i’V	**65 LIM***	iu’V
6 AFF	i	**18 OGN**	ae	**30 TFM**	oa	**42 CVS**	öu	**54 ACS***	o’V	**66 LOC***	â’V
7 DAT	ü / a’e	**19 PAR**	ia / ua	**31 REF**	oe	**43 COR**	ai’	**55 DFF***	u’V	**67 ORI***	ê’V
8 INS	ai	**20 CRS**	ie / ue	**32 CLA**	öa	**44 DEP**	ui’	**56 PER ***	ö’V	**68 PSV***	ô’V
9 ACT	ei	**21 CPS**	io / uo	**33 CNV**	öe	**45 PVS**	ei’	**57 PRO***	ü’/ ëu’V	**69 ALL***	î’V/û’V
10 DER	ui	**22 PRD**	iö / uö	**34 IDP**	üa / i’	**46 PTL**	oi’	**58 PCV***	ai’V	**70 ABL***	ëu’V
11 SIT	oi	**23 MED**	a’	**35 BEN**	üe / ö’	**47 CON**	au’	**59 PCR***	ei’V	**71 NAV***	ou’V
12 POS	â	**24 APL**	u’	**36 TSP**	üo / î’ / û’	**48 EXC**	iu’	**60 ELP***	ui’V	**72 VOC**	ë

* Cases 51 – 71: The V represents a vowel form whose default value is **-a-**. However, if the formative’s **Vr** affix can be deleted from Slot IV, then optionally, V takes the value of the **Vr** affix and the **Vr** affix is deleted from Slot IV, e.g., *opral* declined into the SML case becomes either *opra’al* or *pra’ol*.

For personal reference adjuncts, which correspond roughly to personal pronouns in other languages, case markers are dependent on various factors, as explained in Section 8.1.

We are now in a position to examine the different noun cases in detail. We will start with the group of cases which correspond to “subjects” and “objects” in Western languages.

4.3 THE TRANSRELATIVE CASES

The Transrelative cases refer to eleven cases used to identify nouns functioning as participants to a verb, what in Western grammatical terms would be referred to as “subjects” and “objects” and most likely marked as either nominative, accusative, or dative. It is these cases which more or less correspond to the semantic roles identified in Sec. 4.1 above. The eleven transrelative cases are the OBLIQUE, ABSOLUTIVE, DATIVE, ERGATIVE, EFFECTUATIVE, INDUCIVE, AFFECTIVE, INSTRUMENTAL, ACTIVATIVE, DERIVATIVE, and SITUATIVE. Following are explanations of the function and usage of each case.

Actual Ithkuil examples of these cases in use are provided in Section 4.3.12.

4.3.1 OBL The Oblique Case

The OBLIQUE case is marked by the **Vc** value **-a-**. As described above in Section 4.1.2, the OBLIQUE identifies the semantic role of CONTENT, whether it is something given to a RECIPIENT, or the non-causal abstract content of an experiential state, e.g., a memory recalled, something desired, something feared. It would thus be used in translating sentences such as *Sam gave me* ***a book****, The child likes* ***cereal****.* It is also the case associated with existential identification, which in English would be the subject of the verb ‘to be’ when referring to the intrinsic identity or static description of a noun as in the English sentences ***That boy*** *is blind* or ***The house*** *was built of wood*. The OBLIQUE, being the semantically most neutral case, is also the citation form of a noun (i.e., the form in which the noun would be listed in a dictionary).

4.3.2 IND The Inducive Case

The INDUCIVE case is marked by the **Vc** value **-u-**. The INDUCIVE identifies a noun which undergoes a self-initiated action, i.e., the noun is a PATIENT of an agential action in which the AGENT and the PATIENT are the same. Note that this does not necessarily imply reflexive action (i.e., doing something to oneself). It would be used in sentences such as ***The boy*** *jumped,* ***He*** *sang,* ***The dog*** *barked all night,* or ***She*** *danced to the music*, in which the party initiating and performing the action are one and the same.

4.3.3 ABS The Absolutive Case

The ABSOLUTIVE case is marked by the **Vc** value **-e-**. As described in Section 4.1.1 above, the ABSOLUTIVE identifies the semantic role of PATIENT of an agential action, where the agent-initiator is a different party than the patient who undergoes the resulting action. Note that in sentences with patient subjects, the agent or instrument of agency need not be overtly expressed. Examples of English sentences translatable using the ABSOLUTIVE would be *The boy hit* ***the girl****, She forced* ***him*** *to do it,* ***The bird*** *fell from the sky,* ***The prisoner*** *died during the gun battle.*

4.3.4 ERG The Ergative Case

The ERGATIVE case is marked by the **Vc** value **-o-**. The ERGATIVE identifies the semantic role of AGENT, i.e., a noun which initiates a tangible action undergone by another party (the PATIENT), as described in Section 4.1.1. Note that sentences involving an ERGATIVE agent need not overtly express the patient noun. Examples of English sentences translatable using the ERGATIVE would be ***The boy*** *hit* *the girl, **She** forced him to do it, **That murderer** kills for fun.*

4.3.5 EFF The Effectuative Case

The EFFECTUATIVE case is marked by the **Vc** value **-ö-**. The EFFECTUATIVE identifies the noun acting in the semantic role of ENABLER, as described in Section 4.1.2 above. This is the noun which initiates a causal chain of events, ultimately resulting in a final event. An example would be pulling out the plug of a filled bathtub thereby causing it to empty. This case should therefore be carefully distinguished from the ERGATIVE case. Ergatively marked nouns imply that the action undergone by the patient is the same action directly initiated by the agent, whereas EFFECTUATIVE nouns imply a chain or series of cause-and-effect actions. For example, in the Ithkuil translation of the sentence *The clown emptied the blood from the tub*, the clown could be marked either as an AGENT by means of the ERGATIVE case, or as an ENABLER using the EFFECTUATIVE case. The former would mean the clown poured out the blood himself, while the latter would mean he let it drain (i.e., by pulling the plug). Such case distinctions eliminate the need for Ithkuil to have separate verbs for 'to drain,' 'to pour' or 'to empty.' The Ithkuil verb used in translating the sentence would simply mean 'to remove.'

Note that the EFFECTUATIVE case is commonly used with the ENB affix **-ls** to show the degree or nature of the enabling cause. With this suffix, sentences can be produced which specify whether the enablement is via giving of consent or permission, by persuasion, by subtle indirect influence, by removal of a hindrance, or even by inaction.

4.3.6 AFF The Affective Case

The AFFECTIVE case is marked by the **Vc** value **-i-**. The AFFECTIVE denotes a noun whose semantic role is that of EXPERIENCER, as described previously in Section 4.1.2, the noun which undergoes a non-causal, non-initiated (and unwilled) experiential state, whether internally autonomic in nature or as the result of an external stimulus. Examples of such states would be automatic sensory experience; autonomic bodily reactions such as yawning, sneezing, coughing, blinking, itching, feeling sleepy, pain, feeling ill, feeling cold or warm; automatic reactions to external stimuli such as shock, flinching, ducking, raising one's arms to avoid sudden danger; as well as any unwilled emotional state such as love, hate, fear, anger, surprise, joy, wistfulness, shyness, regret, anxiety, etc.

Example sentences requiring the use of the AFFECTIVE case would be ***The baby** is coughing, The lightning startled **her**, **Mortimer** loves his vittles, **Uncle Davey** slept till noon, My back itches **me**.*

Note that if the experiential state is willfully brought about by the noun undergoing it, the INDUCIVE case would be used, since the noun is deliberately initiating an action in order to induce the experiential state. For example, compare the sentence ***The children** smiled with glee* (marked using the AFFECTIVE) with ***The children** smiled on cue* (marked using the INDUCIVE).

4.3.7 DAT The Dative Case

The DATIVE case is marked by the **Vc** value **-ü-** or, if the **Cr** root ends in a **-w** or **-y**, it is marked by the **Vc** value **-ae'-**. The DATIVE has two functions in Ithkuil. Similarly to Western languages, it marks indirect objects of verbs of giving and telling, i.e., the semantic role of RECIPIENT of a noun transferred via an act of giving, donation, lending, or other transference of possession, or the hearer to who something is said, told, recounted, etc, as described in Section 4.1.2 above. Secondly, like some Western languages (e.g., Russian), Ithkuil uses a dative construction in lieu of any verb 'to have' in reference to possession or attribution. It would therefore be used in translating sentences such as *We're giving **you** a present, Jason lent a dollar **to his sister**, Please grant **me** a wish, **The student** has three books, **Those mountains** have a mysterious quality.*

4.3.8 INS The Instrumental Case

The INSTRUMENTAL case is marked by the **Vc** value **-ai-**. As described previously in Section 4.1.1, the INSTRUMENTAL denotes a noun which functions as the INSTRUMENT or means utilized by an AGENT in accomplishing an action or bringing about a state. It is usually translated by English 'with.' Examples of usage would be *She killed him **with a knife**, The man tripped over **my foot**, **The password** got him inside*. The INSTRUMENTAL is also used to mark translations of an inanimate "subject" noun when its logical function is as the instrument of an unstated agent, e.g., compare *I pressed the button **with my finger*** with ***My finger** pressed the button*, both of which would be identical in Ithkuil except for the latter sentence's missing agent, *I*.

Note that the INSTRUMENTAL does not translate 'with' in its meaning of 'along with' or 'accompanied by' (see the COMITATIVE case below in Sec. 4.5.20) as in *She arrived with her father*. Nor is it used to show the resources or materials consumed in performing an act. For example, in the sentence *He cooks with tomatoes* (see the COMPOSITIVE case in Sec. 4.5.3), it is not the tomatoes that cook the food, therefore the INSTRUMENTAL would not be used, whereas in *He fueled the fire with wood* it is the wood that fuels the fire, thus requiring the INSTRUMENTAL case.

4.3.9 ACT The Activative Case

The ACTIVATIVE case is marked by the **Vc** value **-ei-**. The ACTIVATIVE identifies a noun engaged in or subject to a mental or metaphysical state which, as a concurrent result, creates a hypothetical, "unrealized" situation which can potentially be made real by further action. Such unrealized situations can be illustrated by the sentence *Frank must go to Chicago*, in which no actual travel to Chicago has occurred and, in fact, may not occur. Similarly, in the sentence *Mother needs to rest*, no resting has yet occurred and may not. In both sentences, the event which would "fulfill" the state described remains an unrealized hypothetical, at least from the perspective of the speaker. Similar hypothetical events or states are found in the sentences *The students want you to sing, Everyone expected you to laugh, or Joe will demand that I stay*. Note that many of these constructions in English involve the use of "modal" verbs such as *want, need, can, must*, etc.

Notice that the subject of these English sentences (*Frank, Mother, the students, everyone, Joe*) are functioning neither as AGENTS nor PATIENTS, since the modal verbs of which they are the subject do not identify as-yet actualized events, only states of unrealized potential. These subjects are essentially EXPERIENCERS undergoing a mental or metaphysical state of wanting, needing, obligation, expectation, hoping, wishing, being able to, etc. However, such experiencers must be differentiated from would-be experiencers "within" the hypothetical situation. For example, in the sentence *Sam wants Shirley to love him*, it could become ambiguous if Sam and Shirley are both marked as EXPERIENCERS using the AFFECTIVE case. Consequently, Ithkuil uses the ACTIVATIVE case to mark the subject whose mental or metaphysical state creates a concurrent hypothetical, as-yet unrealized situation. All of the subjects in the example sentences from the previous paragraph (i.e., *Frank, Mother, the students, everyone, Joe*) would be so marked. In Section 6.1 we will see how the ACTIVATIVE is used in conjunction with a morphological category for verbs termed Modality to create such hypothetical states and situations.

4.3.10 DER The Derivative Case

The DERIVATIVE case is marked by the **Vc** value **-ui-**. The DERIVATIVE serves two functions in Ithkuil. Firstly, it identifies an inanimate FORCE of nature (as described in Sec. 4.1.1) or abstract causative situation which causes a PATIENT noun to undergo an action, as in ***The wind** blew down the door,* or ***Fame** threatened his freedom.* The use of the DERIVATIVE instead of the ERGATIVE or the EFFECTUATIVE denotes that such inanimate agential forces or abstract enabling situations cannot consciously or willingly initiate actions, but rather are merely circumstantial initiating causes. Therefore the resulting act, event, or state is seen more as having derived from this force or situation, as opposed to being willfully or consciously caused. In this function, a noun in the DERIVATIVE can often be translated using phrases such as 'due to, owing to, on account of, because of, as a result of.' Nouns in the DERIVATIVE can also appear in appositive constructions (i.e., in a noun-to-noun conjunction) where the noun in the DERIVATIVE denotes the abstract cause or reason for the other noun, e.g., *the danger **of fame**, **love's** heartache, **wind** song*.

The second function of the DERIVATIVE case is to identify the non-agential, unconscious or non-deliberate STIMULUS of an affective mental state, emotion, or autonomic sensory experience, as in ***The coffee** smells good, I saw **her** today, She hates **that boy**, Victor coughed **from the gas**, We laughed at **his jokes**, **That song** makes me cry*. Ithkuil grammar views the stimulus of an experiential state as having a similar role to that of an abstract circumstantial or situational cause (as in the above examples); this explains why the DERIVATIVE case serves to indicate both functions.

4.3.11 SIT The Situative Case

The SITUATIVE case is marked by the **Vc** value **-oi-**. The SITUATIVE identifies a noun as the background context for a clause. It is similar to the DERIVATIVE case immediately above, except it does not imply a direct causative relationship between the background context and the act, condition, or event which occurs. It is translatable into English by various circumlocutions, as shown in the following examples:

> ***Because of war**, our planet will never be able to join the Federation.*
> ***Given the presence of clowns**, we must accept the corruption of our children.*
> ***Using my plan**, we will defeat the enemy.*

4.3.12 Examples of Transrelative Cases in Use

The following are examples of various Ithkuil sentences showing how assigning different transrelative cases to the noun participants (i.e., the arguments to the verb) allows for various changes in meaning, regardless of argument structure. As can be seen, the English translations of many of these sentences often require word order changes, word-substitution, even outright paraphrase, all in order to accommodate the constraints on English argument structure.

Roots used: **-zb-** informal Pattern 1, Stem 1 *'anger; be angry/feel anger'* **-kš-** formal Pattern 1, Stem 2 *'clown'*

STA = STATIVE function DAT = DATIVE case

DYN = DYNAMIC function
AFF = AFFECTIVE case
SIT = SITUATIVE case
DER = DERIVATIVE case
ERG = ERGATIVE case

IND = INDUCIVE case
GEN = GENITIVE case
ABS = ABSOLUTIVE case
OBL = OBLIQUE case
LOC = LOCATIVE case

‘be angry/feel anger’	‘I/me’	‘clown’	MEANING
Azbal STA	**ti** AFF	**ekšóil**. SIT	LISTEN *‘I’m angry because of the clown* (clown can’t help it, not at fault).’ / *‘I’m angry because there’s a clown.’ / ‘I’m angry at the presence of a clown.’*
Azbal STA	**ti** AFF	**ekšúil**. DER	*‘The clown (unwittingly) makes me angry.’ / ‘I’m angry at the clown* (something he’s done has made me angry).’
Azbal STA	**ti** AFF	**ekšól**. ERG	*‘The clown (deliberately) makes me angry.’*
Azbal STA	**ti** AFF	**èkšöl**. EFF	*‘What the clown has (deliberately) started/caused makes me angry.’*
Azbal STA	**ti** AFF	**èkšül**. DAT	*‘My angry state is directed toward/affects the clown* (i.e., the clown notices/reacts to my anger).’
Azbal STA	**tü** DAT	**ekšíl**. AFF	*‘I notice/feel that the clown is angry at me.’*
Azbal STA	**tö** EFF	**ekšíl**. AFF	*‘What I (deliberately) started/caused makes the clown angry.’*
Azbal STA	**to** ERG	**ekšíl**. AFF	*‘I (deliberately) anger the clown.’*
Azbal STA	**tui** DER	**ekšíl**. AFF	*‘I inadvertently anger the clown.’*
Azbal STA	**toi** SIT	**ekšíl**. AFF	*‘My being here angers the clown.’*
Azbal STA	**tu** IND	**ekšóil**. SIT	*‘I make myself angry at the presence of the clown.’*
Azbal STA	**tu**. IND	--	*‘I (deliberately) make myself angry.’*
Azbal STA	**tü**. DAT	--	*‘Someone is behaving angrily toward me.’*
Azbal STA	**tö**. EFF	--	*‘I’ve (deliberately) started/caused something that makes someone angry.’*
Azbal STA	**to**. ERG	--	*‘I (deliberately) anger someone.’*
Azbal STA	**tui**. DER	--	*‘I (inadvertently) anger someone.’ / ‘What I’ve done makes someone angry.’*
Azbal STA	**toi**. SIT	--	*‘My presence makes someone angry.’*
Azbal STA	**ti**. AFF	--	*‘I’m angry.’ / ‘I feel anger.’*
Azbal STA	--	**ekšúl**. IND	*‘The clown (deliberately) makes himself angry.’*
Azbal STA	--	**èkšül**. DAT	*‘Someone is behaving angrily toward the clown.’*
Azbal STA	--	**èkšöl**. EFF	*‘The clown has (deliberately) started/caused something that makes someone angry.’*
Azbal STA	--	**ekšól**. ERG	*‘The clown (deliberately) anger someone.’*
Azbal STA	--	**ekšúil**. DER	*‘The clown inadvertently angers someone.’ / ‘What the clown does makes someone angry.’*
Azbal STA	--	**ekšóil**. SIT	*‘(The presence of) the clown makes someone angry.’*
Azbal STA	--	**ekšíl**. AFF	*‘The clown is angry.’ / ‘The clown feels anger.*
Azbal STA	--	--	*‘There is a feeling of anger.’ / ‘There is anger.’*

Same sentences as above but with DYNAMIC Function to convey action rather than state, i.e., angry behavior or physical display of anger rather than mere internal feeling of anger.

Izbal DYN	**ti** AFF	**ekšóil**. SIT	 *‘My display of anger/my angry behavior was because of the clown* (with the clown being unaware of it and not its fault).’
Izbal DYN	**ti** AFF	**ekšúil**. DER	*‘My display of anger/my angry behavior was due to the clown* (without the clown being necessarily aware of it).’
Izbal DYN	**ti** AFF	**èkšül**. DAT	*‘My display of anger/my angry behavior affected/intimidated the clown.’*

More examples of transrelative case patterns:

-k’- formal Pattern 3, Stem 2 *‘burn’*

-p^h- informal Pattern 1, Stem 1 *‘tree’*

burn	1m	tree	MEANING
Iek’ás DYN	**to** ERG	**p^{h}el.** ABS	LISTEN *‘I burn the tree.’*
Êk’ás STA	--	**p^{h}el**. ABS	*‘The tree burns.’*
Iek’ás DYN	--	**p^{h}ul**. IND	*‘The tree burns itself.’ / ‘The tree makes itself burn.’*

lek’ás DYN	**to**. ERG	--	*‘I cause something to burn.’ / ‘I burn.’* [meaning: I cause burning to happen]
lek’ás DYN	**tö**. EFF	--	*‘I cause something to burn (through a chain of events).’ / ‘I burn.’* [meaning: I cause a chain of events leading to burning]
lek’ás DYN	**te**. ABS	--	*‘I burn/am burning.’ / ‘Something burns me.’*
lek’ás DYN	**tu**. IND	--	*‘I burn myself.’ / ‘I make myself burn.’*
lek’ás DYN	**tö** EFF	**p^{h}el**. ABS	*‘I cause the tree to burn (through a chain of events).’*
lek’ás. DYN	--	--	*‘Something’s doing some burning.’ / ‘Something’s making some burning happen.’*
Êk’ás. STA	--	--	*‘Something’s burning.’ / ‘There’s burning happening.’*

Other patterns are possible. For example, the following chart shows patterns that can be used to translate variations on English *‘I hit my leg with a rock’*, or *‘I hit myself on the leg with a rock’*, or *‘A rock hit me on the leg.’*

-č- informal Pattern 1, Stem 1 ‘physical contact’ + FRC$_1$/7 --> **čalosk** ‘hit/strike’
-pr- informal Pattern 2, Stem 1 ‘leg (as physical body part)’
-kt- formal Pattern 1, Stem 1 ‘(piece of) rock’
tê = ‘I’ in genitive case referring to owner of the leg; combines as a prefix *ê-* with the various transrelative case forms of ‘I’ such as *to, tu, te*, etc. to give forms such as *êto, êtu, êti*.

hit/strike	I	my leg	rock	MEANING
Ičalosk DYN	**êto** GEN / ERG	**oprel** ABS	**aktáil** INS	LISTEN Implies an intentional act against my leg, where my leg is seen as being an entity subjectively separate from myself, thus I am the agent while the leg is the patient. Translation: *‘I (intentionally) hit my leg with a rock.’*
Ičalosk DYN	**êtu** GEN / IND	**opral** OBL	**aktáil** INS	In this pattern, the leg is no longer seen as a patient separate from myself as the agent. Rather, I am both agent and patient (i.e, I’m initating the action against myself), and the role of the leg is de-emphasized to being merely a referent for the act of hitting, i.e., it is I who got hit, not the leg; the leg is merely the part of me that got hit. Consequently, The closest English translation would be *‘I (intentionally) hit myself with a rock on the leg,’* using a locative construction “on the leg” not present in the Ithkuil sentence. A stilted, but more accurate translation might be *‘I (intentionally) “leg-hit” myself with a rock.’*
Ičalosk DYN	**ête** GEN / ABS	**opral** OBL	**aktáil** INS	This sentence masks an implied agent, emphasizing myself as the patient/victim, while, as in the sentence immediately above, the leg is reduced to merely a referent for the hitting, its status as a patient and as the location/site of the hitting suppressed. About the only way to show this suppression of agency in English is with a passive construction or a pseudo-passive construction using the verb ‘get’: *‘I am/get (intentionally) “leg-hit” with a rock.’*
Ičalosk DYN	**ête** GEN / ABS	**prâ’ol** LOC	**aktáil** INS	This sentence is like the one immediately above except that the leg is the location/site of the hit. Translation: *‘I am/get (intentionally) hit on the leg with a rock.’*
Ičalosk DYN	**êtu** GEN / IND	**prâ’ol** LOC	**aktáil** INS	Emphasizes that I am both agent and patient and that the leg is the location/site of the hitting. Translation: *‘I (intentionally) hit myself on my leg with a rock.‘*
Ičalosk DYN	**êtu** GEN / IND	**opral** OBL	**aktáil** INS	Emphasizes that I am both agent and patient but with the leg reduced to merely the referent of hitting. Impossible to translate accurately into English except with the contrived sentences *‘I “leg-hit” myself with a rock’* or *‘I (intentionally) get me my leg hit with a rock.’*
Ičalosk DYN	**êti** GEN / AFF	**prâ’ol** LOC	**aktáil** INS	Suppresses the agency of the action, and emphasizes myself as unwilled/accidental victim of the hitting, with my leg as the location/site of the hit. Translations: *‘I (accidentally) am/get hit on the leg with a rock.’*
Ičalosk DYN	**êti** GEN / AFF	**opral** OBL	**aktáil** INS	Like the example immediately above, exept with the role of the leg reduced from location to mere referent of the verb. Translation: *‘I am/get “leg-hit” (accidentally) with a rock.’*
Ičalosk DYN	**to** ERG	—	**aktáil** INS	Translation: *‘I (intentionally) hit something with a rock / I (intentionally do some hitting with a rock.’*
Ičalosk DYN	**tu** IND	—	**aktáil** INS	Translation: *‘I (intentionally) hit myself with a rock.’*
Ičalosk DYN	**te** ABS	—	**aktáil** INS	Translation: *‘I am/get (intentionally) hit with a rock.’*
Ičalosk DYN	**ti** AFF	—	**aktáil** INS	Translation: *‘I am/get hit (accidentally) with a rock.’*
Ičalosk DYN	—	**tê opril** AFF	**aktáil** INS	Here, the distinction between myself and the leg is suppressed, so that the leg is seen as the unwilled/accidental victim, not me: *‘My leg is/gets hit (accidentally) with a rock.’*
Ičalosk DYN	—	**tê oprel** ABS	**aktáil** INS	Translation: *‘My leg is/gets (intentionally) hit with a rock.’*
Ičalosk DYN	—	**tê opral** OBL	**aktáil** INS	This sentence reduces the role of the participant to the verb as merely an abstract referent for the hitting, with no implications of being the victim/target of hitting, or of me or the leg undergoing any tangible result of hitting. This can only be approximated in English by contrived translations such as *‘“Leg-hitting” with a rock occurs’* or *‘An act of hitting with a rock involving my leg occurs.’*
Ičalosk DYN	—	**tê prâ’ol** LOC	**aktáil** INS	Translation: *‘There occurs a hit on my leg with a rock. / A hit with a rock occurs on my leg.’*
Ičalosk DYN	—	—	**aktáil** INS	This sentence masks both agent and patient, as well as the location of the hitting, emphasizing only the instrument. Possible translations: *‘Hitting with a rock occurs,’* or *‘The rock hits something,’* or *‘Something gets hit with a rock.’*

Note that all of the above sentences can be restated without the presence of the rock as instrument:

hit/strike	I	my leg	MEANING
Ičalosk DYN	**êto** GEN / ERG	**oprel** ABS	*‘I (intentionally) hit my leg.’*
Ičalosk DYN	**êtu** GEN / IND	**opral** OBL	*‘I (intentionally) “leg-hit” myself.’*
Ičalosk DYN	**ête** GEN / ABS	**opral** OBL	*‘I am/get (intentionally) “leg-hit”.’*
Ičalosk DYN	**ête** GEN / ABS	**prâ’ol** LOC	*‘I am/get (intentionally) hit on the leg.’*
Ičalosk DYN	**êtu** GEN / IND	**prâ’ol** LOC	*‘I (intentionally) hit myself on my leg. ‘*
Ičalosk	**êtu**	**opral**	*‘I “leg-hit” myself’* or *‘I (intentionally) get me my leg hit.’*

DYN	GEN / IND	OBL	'I "leg-hit" myself' or 'I (intentionally) get me my leg hit.'
Ičalosk DYN	**êti** GEN / AFF	**prâ'ol** LOC	*'I am/get hit (accidentally) on the leg.'*
Ičalosk DYN	**êti** GEN / AFF	**opral** OBL	*'I (accidentally) am/get "leg-hit"'* or *'I (accidentally) get me my leg hit.'*
Ičalosk DYN	**to** ERG	—	*'I (intentionally) hit something.' / 'I do some hitting.'*
Ičalosk DYN	**tu** IND	—	*'I (intentionally) hit myself.'*
Ičalosk DYN	**te** ABS	—	*'I am/get (intentionally) hit.'*
Ičalosk DYN	**ti** AFF	—	*'I am/get hit (accidentally).'*
Ičalosk DYN	—	**tê opril** AFF	*'My leg is/gets hit.'*
Ičalosk DYN	—	**tê oprel** ABS	*'My leg is/gets (intentionally) hit.'*
Ičalosk DYN	—	**tê opral** OBL	*'"Leg-hitting" occurs'* or *'An act of hitting involving my leg occurs.'*
Ičalosk DYN	—	**tê prâ'ol** LOC	*'There occurs a hit on my leg. / A hit occurs on my leg.'*
Ičalosk DYN	—	—	*'Some hitting occurs' / 'Something does some hitting' / 'Something gets hit.'*

Patterns with the rock in the DERIVATIVE case are also possible, in which the rock is seen as a blind force of nature (e.g., it has been hurled at the leg by a strong wind or has fallen on the leg from above, or has hit the leg after being kicked up by a passing vehicle, etc.).

hit/strike	I	my leg	rock	MEANING
Ičalosk DYN	--	**tê oprel** ABS	**aktúil** DER	*'The rock hits my leg.' / 'My leg is/gets hit by a rock.'*
Ičalosk DYN	**ête** GEN/ABS	**prâ'ol** LOC	**aktúil** DER	*'The rock hits me on my leg.'*
Ičalosk DYN	**ête** GEN/ABS	**opral** OBL	**aktúil** DER	*'I get my leg hit by the rock.' / 'I was/got "leg-hit" by the rock.'*
Ičalosk DYN	**êti** GEN/AFF	**opral** OBL	**aktúil** DER	*'The rock "leg-hits" me.*
Ičalosk DYN	**ti** AFF	--	**aktúil** DER	*'The rock hits me.' / 'I am/get hit by a rock.'*
Ičalosk DYN	--	--	**aktúil** DER	*'The rock hits something.'*

Possible Ithkuil translations for the English sentence 'My back itches me.'

-kç- informal Pattern 1, Stem 1: *'itch'*
-xn- informal Pattern 2, Stem 1: *'back, dorsal bodily surface'*
OGN = ORIGINATIVE case

itch	I	my back	MEANING
Kças STA	**êti** GEN/AFF	**oxnall** OBL	LISTEN *'My back itches me.'* This is grammatically acceptable and the most neutral or vague.
Kças STA	**êti** GEN/AFF	**xnâ'oll** LOC	*'I itch on my back.'* Emphasizes the bodily location of the itch.
Kças STA	**êti** GEN/AFF	**oxnaell** OGN	*'The itching I'm feeling is coming from my back.'* Conveys the sense of the back being the place of origin of the itch.

Again, each of the above Ithkuil sentences could delete the affective patient "I/me" from the sentence to render equivalents to the English sentence 'My back itches' and 'There's itching on my back.'

Use of the ABSOLUTIVE case with DYNAMIC function conveys the idea of an unnamed external agent that is causing the itching.

itch	I	my back	MEANING
Ikças DYN	**êti** GEN/AFF	**oxnell** ABS	*'Something is making my back itch me.'* Implies that the cause of the itching is an external unnamed agent.
Ikças DYN	**ête** GEN/ABS	**xnâ'oll** LOC	*'Something is itching me on my back.'* Switches the patient role to me as opposed to my back, and implies that the cause of the itching is an external unnamed agent.

If we remove the personal reference adjunct 'I/me' from the above two sentences, the respective translations become *'Something is itching my back'* and *'Something itches on my back.'*

4.3.13 Using Case to Achieve "Middle Voice" Semantic Effects

English (among other languages) allows some of its verbs to operate both transitively (i.e., taking a direct object) as well as intransitively (i.e., without a direct object), where the object of the transitive sentence becomes the subject of the intransitive sentence. Furthermore, the intransitive sentence describes the same potential event as the transitive version does, except that no agent is expressed, the focus of the sentence being on the result, not the act which gives rise to the result. Examples:

The manager opened the store at 8 a.m.
The store opened at 8 a.m.

Robert flies the airplane beautifully.
The airplane flies beautifully.

The engineer increased the pressure.
The pressure increased.

I molded the soft clay easily.
The soft clay molded easily.

Note that the second sentence of each pair above is semantically distinct from its passive voice equivalent (i.e., *The store was opened at 8 a.m., The airplane is flown beautifully, The pressure was increased, The soft clay was molded easily*) in that passives allow for the agent to be overtly stated (using the preposition 'by' in English, as in *The store was opened by the manager*) or, if absent, nevertheless imply the existence of the agent. However, the intransitive sentences above (equivalent to "middle voice" constructions is

languages such as Swahili or Turkish) do not allow for expression of an agent and are designed to supress the semantic relevance (or *saliency*) of the agent.

However, English is very haphazard and idiosyncratic as to what verbs it allows to operate this way, often having to resort to paraphrase and idiomatic structures to accomplish the same effects as in the four intransitive sentences above. For example [ungrammatical sentences are preceded by an asterisk]:

Father painted the fence yellow.
* *The fence painted yellow.*
(But: *The fence came out yellow.*)

I noticed a storm on the horizon.
* *A storm noticed on the horizon.*
(But: *A storm came into view on the horizon.*)

The owner keeps scissors with the sewing supplies.
* *Scissors keep with the sewing supplies.*
(But: *Scissors belong/stay with the sewing supplies.*)

Fans buy beer a lot at baseball games.
* *Beer buys a lot at baseball games.*
(But: *Beer sells a lot at baseball games.*)

Of course, many English speakers would simply use the passive voice or a construction using 'get' to accomplish the same thing (i.e., *The fence was/got painted yellow, A storm was noticed on the horizon, The scissors are/get kept with the sewing supplies, Beer is/gets bought a lot at baseball games.*) without worrying about the existence of an implied agent.

Many languages utilize reflexive constructions to accomplish this effect, e.g., Spanish *Se habla español aquí*, literally "Spanish speaks itself here", meaning *Spanish is spoken here*.

Ithkuil, however, can manipulate the assignment of case to verb arguments to achieve this "middle voice" effect for any verb where it is semantically feasible, without having to resort to idiomatic constructions or paraphrase. For example:

Aikkaldhort âḷnoccaţ.
'chew'-easily 'snails'-**ERGATIVE**
Snails chew easily. [meaning: It is easy for snails to chew things.] LISTEN

versus:

Aikkaldhort âḷneccaţ.
'chew'-easily 'snails'-**ABSOLUTIVE**
Snails chew easily. [meaning: It is easy to chew (on) snails.] LISTEN

4.3.14 Specialized Suffixes Used to Expand the Functionality of the Transrelative Cases

It should be noted that Ithkuil provides an array of suffixes specifically designed to work in conjunction with nouns inflected into one of the Transrelative cases to significantly expand their ability to specify the exact nature of the causal relationships between participants to a verb in an Ithkuil sentence. These suffixes include the Consent **CNS** suffix, the Reason **RSN** suffix, the Expectation **XPT** suffix, the Deliberateness **DLB** suffix, the Enablement **ENB** suffix, the Agency/Intent **AGN** suffix, and the Impact **IMP** suffix. These affixes are detailed in Section 7.4.12 and discussed further in Section 10.1.2.

4.4 THE POSESSIVE CASES

Those Western languages which have possessive cases usually have only one such case, often functioning in a vague and ambiguous way to show varying types of relationships between two nouns. For example, notice the differing relationships expressed by the possessive in the following English sentences:

the man's hat = the hat belonging to him [alienable possession]
the man's house = the house he legally owns [proprietary responsibility]
the man's arm = part of his body [inalienable component]
the man's brother = the brother related to him [genetic relationship]
the man's happiness = he feels happy [affective experience]
the man's rescue = he was or will be rescued [target of others' purpose]
the man's gift = the gift is for him [benefaction]
the man's gift = the gift is from him [source]
the man's world = the world in which he lives [inherent subjective association]
the man's team = the team he is associated with [interactive mutual association]
the man's story = the story about him [topical reference]
the man's painting = the picture he painted [creation/authorship]
the man's command = his being a commander [role or function]

In many instances, the English possessive is totally ambiguous, e.g., does 'the man's story' mean the one he wrote or the one about him? Regarding 'the man's rescue,' did the man do the rescuing or is he the one being rescued? Is 'the man's gift' one he is giving or receiving? Ithkuil is more exact in specifying the nature of these relationships via case. Many of the above relationships are addressed by the seven Possessive cases.

The Possessive cases make a distinction between alienable versus inalienable possession or attribution, as well as distinguishing whether the possession is inherent to the possessor or imposed or caused from without. These distinctions are explained below. Like Western languages (and unlike many American Indian and North Caucasian languages), the case marking is on the possessor noun, not the possessed. The seven Associative cases are the POSSESSIVE, PROPRIETIVE, GENITIVE, ATTRIBUTIVE, PRODUCTIVE, INTERPRETATIVE, and ORIGINATIVE. Following are explanations of the function and usage of each case. Actual Ithkuil examples of the cases in use are given in Sec. 4.4.8.

4.4.1 POS The Possessive Case

The POSSESSIVE case is marked by the **Vc** value **-â-**. The POSSESSIVE is used to refer to a noun which has alienable (i.e., removable or severable) possession of another noun in the sense of having physical control or oversight of that noun, whether by chance circumstance or deliberate manipulation. The two nouns are not in any sense inherent parts of one another and the relationship between the two can be theoretically or actually terminated by an outside force or influence, or by decision of the possessor, usually by means of mere physical permanent separation of the possessor and possessed nouns. The possessive would be used to translate English phrases such as ***his*** *coat* (e.g., the one he is wearing, regardless of whether he owns it or not), ***the boy's*** *book* (e.g., the one in his hand), ***Father's*** *chair* (e.g., the one he happens to be sitting in, as in a restaurant).

4.4.2 PRP The Proprietive Case

The PROPRIETIVE case is marked by the **Vc** value **-î-** or alternately **-û-**; following **Cr** stems ending in **-w**, the **Vc** value is **-î-**, while following **Cr** stems ending in **-y**, the **Vc** value is **-û-**; after other **Cr** stems, either **Vc** value is permissible. The PROPRIETIVE identifies a noun having alienable possession of another noun in the sense of quasi-permanent contextual control, ownership or oversight, whether by societal recognition, social convention, law, purchase or decree, which mere physical separation does not sever. The two nouns are not in any sense inherent parts of one another, however the relationship cannot be terminated except via an equally or more binding act, declaration, convention, law, process, etc. Using the same English examples used with the POSSESSIVE above, we can analyze the connotative difference: ***his*** *coat* (i.e., the one he owns, regardless of whether he is wearing it or not), ***the boy's*** *book* (e.g., the one he bought), ***Father's*** *chair* (e.g., the one assigned to him).

4.4.3 GEN The Genitive Case

The GENITIVE case is marked by the **Vc** value **-ê-**. The GENITIVE is used to refer to a noun which has inalienable (i.e., unremovable, unseverable) possession of or association with another noun in the sense of having that noun as an inherent or intrinsic attribute, characteristic, physical part, or genetic (i.e., familial) bond, e.g., ***my*** *hand,* ***the building's*** *doors,* ***the child's*** *father, the essence* ***of that woman****.*

4.4.4 ATT The Attributive Case

The ATTRIBUTIVE case is marked by the **Vc** value **-ô-**. The ATTRIBUTIVE is used to refer to a noun which inalienably experiences the effects of, or otherwise has an affective (see the AFFECTIVE case above) relationship with another noun, either as a temporary or permanent attribute, characteristic, or experience, whether physical or psychological, objective or subjective in nature. Examples: ***his*** *pain,* ***Mother's*** *guilt,* ***the child's*** *cough,* ***Dorothy's*** *mood,* ***Davey's*** *happiness,* ***the teacher's*** *stubbornness,* ***my*** *needs.*

4.4.5 PDC The Productive Case

The PRODUCTIVE case is marked by the **Vc** value **-ëi-**. The PRODUCTIVE identifies the creator, author or originator of another noun, e.g., ***the girl's*** *poem,* ***the clowns'*** *plan,* ***my*** *statue* (i.e., the one I sculpted).

4.4.6 ITP The Interpretative Case

The INTERPRETATIVE case is marked by the **Vc** value **-öi-**. The INTERPRETATIVE identifies a noun acting as the subjective interpretational context of another noun, that is the noun by or through which another noun is subjectively interpreted or described, as exemplified by the phrases ***Monet's*** *Paris*, ***our*** *world, life* ***as seen by children***.

4.4.7 OGN The Originative Case

The ORIGINATIVE case is marked by the **Vc** value **-ae-**. The ORIGINATIVE identifies a noun as being the literal or figurative source of another, or which is the native location, origin, or usual locational context for another. , e.g., ***the man's*** *story* (i.e., the one he told), ***our*** *gift* (i.e., the one we are giving), *water* ***from the river****, the fruit* ***of the tree****, Fix the* ***kitchen*** *sink!* (i.e. the one found in the kitchen), ***Desert*** *rocks are so beautiful* (i.e., whether being spoken about rocks taken from the desert or rocks still present in the desert), ***Northern*** *women are easy-going*.

The ORIGINATIVE should be distinguished from the ABLATIVE in Section 4.7.5 below, in that the ABLATIVE position or path of motion away from, whereas the ORIGINATIVE merely presents a locational context as a means of description or to distinguish the noun from an otherwise similar noun.

4.4.8 Examples of Possessive Cases in Use

ultánļ êmmâl
STA-'page.of.writing'-OBL-NRM/DEL/M/SEG/COA-FML STA-'male child '-**POS**-NRM/DEL/M/CSL/UNI-IFL
'the boy's book' [i.e., the one he has in his immediate possession, not one he necessarily owns] LISTEN

ultánļ êmmûl
STA-'page.of.writing'-OBL-DEL/M/SEG/COA-FML STA-'male child '-**PRP**-NRM/DEL/M/CSL/UNI-IFL
'the boy's book' [i.e., the one he owns] LISTEN

öpţal àçtêl
STA-'interior.corner'-OBL-NRM/DEL/M/CSL/UNI-IFL STA-'room/chamber'-**GEN**-NRM/DEL/M/CSL/UNI-FML
'corner of a room' LISTEN

xal akţrôl
STA-'see+thing.seen'-OBL-NRM/DEL/M/CSL/UNI-IFL STA-'eagle'-**ATT**-NRM/DEL/M/CSL/UNI-IFL
'what the eagle sees' LISTEN

Isval êzguirs èkšôt âmmit.
DYN-'fear'-NRM/DEL/M/CSL/UNI-IFL STA-'sound.of.laughter'-DER-NRM/PRX/M/CSL/AGG-IFL STA-'clown'-**ATT**-NRM/DEL/U/CSL/UNI-FML STA-'child'-AFF-NRM/DEL/U/CSL/UNI-IFL LISTEN
'The sound of the clowns' laughter frightens the children.'

ultánļ êmmëil
STA-'page.of.writing'-OBL-NRM/DEL/M/SEG/COA-FML STA-'male child'-**PDC**-NRM/DEL/M/CSL/UNI-IFL
'the boy's book' [i.e., the one he authored] LISTEN

Iolmámž ûmmöil.
DYN-'measure.of.music'-NRM/PRX/M/COA/CST-FML STA-'mother'-**ITP**-NRM/DEL/M/CSL/UNI-IFL
'They're playing mother's song.' [i.e., the one that is special to her] LISTEN

âmpafseč êqael
STA-'whiff.of.odor'-OBL-NRM/PRX/M/CSL/SEG-QUA$_1$/3-IFL STA-'woman'-**OGN**-NRM/DEL/M/CSL/UNI-IFL
'woman giving off a bad odor' or *'bad odor coming from/off the woman'* LISTEN

4.5 THE ASSOCIATIVE CASES

The Associative cases refer to a large group of cases which modify a noun to show that it has some relationship to another, usually adjacent noun or that it functions in an adverbial relationship to a verb. Most of these cases correspond to relationships in which, in English translation, we find two nouns together in apposition or as a compound noun, as in *cat box, schoolbook, peace march, mountain man,* etc., or joined by the word 'of' in a non-possessive relationship, e.g., *box of coins, dreams of youth, sounds of laughter,* or as a modifier of a verbal phrase. Following are explanations of the function and usage of each case. Actual Ithkuil examples of the cases in use are given in Sec. 4.5.33 .

4.5.1 PAR The Partitive Case

The PARTITIVE case is marked by the **Vc** value **-ia-** or **-ua-**; following **Cr** stems ending in **-w**, the **Vc** value is **-ia-**, while following **Cr** stems ending in **-y**, the **Vc** value is **-ua-**; after other **Cr** stems, either **Vc** value is permissible. When used in conjunction with another noun, the PARTITIVE indicates a quantitative or content-to-container relationship between the two nouns, e.g., *a cup* ***of coffee****, a box(ful)* ***of books****, a train(load)* ***of refugees***. When used alone, it signifies that the context of the phrase or sentence involves only a portion of the noun, rather than the whole noun, e.g., *I ate* ***some bread****, Pour* ***(some) water*** *down my back*.

The PARTITIVE is also used to mark a noun qualified by a specific number, e.g., *three* ***boxes****, two* ***clowns****, twenty* ***words***. This usage is analyzed in detail in Chapter 12, where we will see that, in Ithkuil, numbers are formatives (i.e., full nouns and verbs), not adjectives as in Western languages. Additionally, a noun qualified by a number is not pluralized. In other words, one does not say 'three boxes,' but rather "a trio of a box" or perhaps more eloquently, "a box trio."

The PARTITIVE case is also used in constructing words for Ithkuil numbers beginning with two hundred. This is also detailed in Chapter 12 on enumeration.

4.5.2 CRS The Contrastive Case

The CONTRASTIVE case is marked by the **Vc** value **-ie-** or **-ue-**; following **Cr** stems ending in **-w**, the **Vc** value is **-ie-**, while following **Cr** stems ending in **-y**, the **Vc** value is **-ue-**; after other **Cr** stems, either **Vc** value is permissible. The CONTRASTIVE identifies a noun which has been replaced by another or for which another noun has been substituted. This is translatable by the English phrases 'instead of' or 'rather than' or 'as opposed to,' or specialized uses of 'not,' e.g., ***Instead of rain****, it snowed; They hired her as a cook,* ***as opposed to a maid****; I prefer peas* ***to carrots****;* ***Rather than marigolds****, let's buy carnations; That's sugar,* ***not salt***.

4.5.3 CPS The Compositive Case

The COMPOSITIVE case is marked by the **Vc** value **-io-** or **-uo-**; following **Cr** stems ending in **-w**, the **Vc** value is **-io-**, while following **Cr** stems ending in **-y**, the **Vc** value is **-uo-**; after other **Cr** stems, either **Vc** value is permissible. The COMPOSITIVE identifies a noun as being the literal or figurative substance or component(s) of which another is made, composed, formed, built or comprised. Example of usage would be *That statue was carved* ***out of marble****, She owns three* ***gold(en)*** *coins, We were caught in a web* ***of lies****, I use a* ***wooden*** *ladder, It was a house* ***of cards****,* ***Three suits*** *comprise his wardrobe, Joe detests* ***styrofoam*** *cups*.

The COMPOSITIVE is also used in conjunction with verbs to identify the material(s) or resources used up or consumed in performing or undertaking an activity. Examples of this usage would be *She likes to cook* ***with tomatoes****, He reads by* ***candle(light)****, That child goes through* ***four sets of clothes*** *a day, My uncle satisfied his sweet tooth* ***with three chocolate bars***.

4.5.4 PRD The Predicative Case

The PREDICATIVE case is marked by the **Vc** value **-iö-** or **-uö-**; following **Cr** stems ending in **-w**, the **Vc** value is **-iö-**, while following **Cr** stems ending in **-y**, the **Vc** value is **-uö-**; after other **Cr** stems, either **Vc** value is permissible. The PREDICATIVE identifies a noun which constitutes the non-causal basis, foundation, sustenance (literally or figuratively), or required existential condition for another noun or clause, translatable by the phrases ‘based (up)on,’ ‘dependent (up)on’ or ‘relying on.’ Examples of use are *a book **dependent on a publisher**, a man **relying on charity**, laws **based in reason**, Can success **supported by murder** be sustained?*

The PREDICATIVE should be distinguished from Transrelative cases such as the DERIVATIVE or INSTRUMENTAL, in that the PREDICATIVE does not denote a cause, merely the sustaining entity on which another depends, e.g., it would not be used to translate *anxiety based on terror*, as the anxiety does not ‘rely’ or ‘depend’ on terror, but rather is caused by it. Similarly, in the phrase *an attitude fueled by greed*, the attitude derives from or results from greed, but is not relying on it.

4.5.5 MED The Mediative Case

The MEDIATIVE case is marked by the **Vc** value **-a’-**. The MEDIATIVE indicates the physical, psychological, or figurative medium through which another noun or event takes place. It would be used in translating phrases or sentences such as *a **radio** announcement, arrival **by water**, a **letter** bomb, **air** mail, achieving ecstasy **through sex**, I showed her my love **with chocolate***. It should be distinguished from the INSTRUMENTAL case (see Section 4.3.8 above), which signifies the actual instrument or physical means used to accomplish a causative action. For example, in the sentence *Call him on the phone!*, translating the phrase *on the phone* into the INSTRUMENTAL case would signify ‘Use the phone (i.e., the one in the room) to call him,’ whereas inflection into the MEDIATIVE case would mean ‘Call him via the medium of telephony.’

4.5.6 APL The Applicative Case

The APPLICATIVE case is marked by the **Vc** value **-u’-**. The APPLICATIVE identifies a noun which represents the purpose for which another noun is to be utilized in a given instance. As such, it usually translates English ‘for’ when meaning ‘for the temporary or incidental use/purpose of.’ Examples of usage would be *a cup for coffee* (i.e., a cup being used incidentally to hold coffee), *a box for tools* (i.e., the box is only temporarily being used to hold tools), *a room for changing*. Note that the use of the APPLICATIVE can extend to usages beyond English ‘for,’ as in *a “weapon” cat* = ‘a cat used as a weapon,’ or *a “projectile” book* = ‘a book used as a projectile.’

4.5.7 PUR The Purposive Case

The PURPOSIVE case is marked by the **Vc** value **-e’-**. The PURPOSIVE identifies a noun which characterizes or defines the purpose of, or reason for, another noun. The PURPOSIVE is subtly distinct from the APPLICATIVE above, in that the latter names the actual use to which a noun is put on a given occasion or in given context, whereas the PURPOSIVE defines another noun’s general function or primary reason for being, outside of any contextual instance, i.e., what the noun is used for all the time (or at least its intended use). It generally translates English ‘as,’ ‘of’ or ‘for’ when meaning ‘for the purpose of’ or alternately an English noun-noun expression or a compound noun. Examples of usage would be *a **coffee** cup, a **tool**box, a **litter** box, a **trash**can*.

4.5.8 CSD The Considerative Case

The CONSIDERATIVE case is marked by the **Vc** value **-o’-**. The CONSIDERATIVE identifies a noun as the delimiting or defining context in which an act, state or event occurs or is considered. Thus, it translates English terms such as ‘according to,’ ‘pursuant to,’ ‘as per,’ ‘in the opinion of.’ Examples of usage would be ***In my opinion** he’s a coward; He’s leaving town **as per orders** from the court; You were arrested **pursuant to law**; **According to our teacher**, humans are descended from apes*.

4.5.9 ESS The Essive Case

The ESSIVE case is marked by the **Vc** value **-ea-**. The ESSIVE identifies the role or name by which a noun is known or contextually identified. It translates English ‘as’ in the sense of naming or reference to the a nouns functional identity. It would be used in translating the English sentences *They called him **a clown**, The woman entered the club **as an equal** of any man, We consider you our **only hope***.

4.5.10 ASI The Assimilative Case

The ASSIMILATIVE case is marked by the **Vc** value **-eo**. The ASSIMILATIVE identifies a noun used as a context for analogy or metaphorical comparison to either another noun or a verb. Thus, it translates English ‘like’ or ‘as’ in the sense of comparison or analogy between one thing and another. Examples of usage are *She sings **like a bird**, **As children** they seemed to me*.

4.5.11 FUN The Functive Case

The FUNCTIVE case is marked by the **Vc** value **-eö-**. It functions similarly to English adverbs ending in *-ly* or the adverbial use of *with*, identifying the manner in which an action, event, or state occurs or exists. More exactly, it identifies a noun used to characterize the manner of the act, state, or event, translatable most accurately by the phrase ‘in a manner characterized by….’ Examples would be: *She dances **gracefully*** (i.e., in a manner characterized by grace), *The boys ate **with gusto**, That clown is speaking **nonsense**, Father speaks **with such fortitude***.

4.5.12 TFM The Transformative Case

The TRANSFORMATIVE case is marked by the **Vc** value **-oa-**. The TRANSFORMATIVE identifies the outcome or final state of a process, often translatable by ‘to,’ ‘until,’ or ‘into’ in the sense of reaching a final state after having undergone some transformation. Example usages would be *The house burned **to ashes**, The clown reached a state **of tranquility**, The clowns will turn our children **into slaves**, Her father drank himself **to death***.

4.5.13 REF The Referential Case

The REFERENTIAL case is marked by the **Vc** value **-oe-**. The REFERENTIAL identifies a noun functioning as the general referent of the verb, translating such English terms as ‘about,’ ‘regarding,’ ‘concerning,’ ‘in regard to,’ ‘in reference to,’ ‘pertaining to,’ or ‘as for.’ Examples of use would be *a song **of love**; **As for those books**, burn them!; Let’s talk **about clowns**; His attitude **toward women***.

4.5.14 CLA The Classificative Case

The CLASSIFICATIVE case is marked by the **Vc** value **-öa-**. The CLASSIFICATIVE identifies a noun as a basis for arranging, sorting, classifying, or counting, translating various English prepositions and phrases used for this purpose. Example of usage are *Place them **in groups of three**, The workers arranged the tables **in rows**, He lay down **lengthwise**, Can you count **by fives**?, I will sort them **by color***.

The CLASSIFICATIVE is also used to identify a noun considered in consecutively recurring increments as a means of describing the manner of an event. This is usually in conjunction with nouns denoting time periods, but can be used with any concrete noun to describe the repetitive nature of an event. Examples would be ***Month by month**, their departure crept closer; **Year after year**, I see more and more clowns; **Day in, day out**, he’s always working; The fertilizer factory keeps rolling them out, **bag upon bag**; **Patient by patient**, the nurse administered injections*.

Note that the CLASSIFICATIVE would not be used to describe a noun other than adverbially, e.g., it would not be used to translate the sentence *One bomb after another fell on the city*. Such a construction would utilize a suffix indicating sequential instantiations of the noun (see Sec. 7.4.4).

4.5.15 CNV The Conductive Case

The CONDUCTIVE case is marked by the **Vc** value **-öe-**. The CONDUCTIVE identifies the meaningful or relevant context of another. It can be thought of as conveying the relationship signified by the expressions ‘having to do with,’ ‘as it pertains to,’ or ‘considered within the context of.’ Examples of English phrases translatable using this case are *a **circus** clown, a **mountain** man, a feeling **of loneliness**, the **Mafia’s** world, a realm **of fear**, my **life** achievement, **childhood** memories, Let’s discuss the morality **of war***.

4.5.16 IDP The Interdependent Case

The INTERDEPENDENT case is marked by the **Vc** value **-üa-** unless the preceding **Cr** stems ending in **-w** or **-y**, in which case the **Vc** value is **-i’-**. The INTERDEPENDENT identifies a noun which has a coordinated, tandem, complementary or mutually dependent relationship with another. The relationship between the two nouns can be thought of as reciprocal in nature, i.e., each noun implies the other or needs the other to exist within it's natural context, e.g., *the **students'** teacher, an **army** general, the blood **in my veins**, the driver **of the truck**, the nation's leader, **his** team* (i.e., the one on which he's a member). Note that this case does not imply a part-whole dependency as with the GENITIVE case above, e.g., it would not be used to translate *the book's pages*, or *the leaves of a tree*.

4.5.17 BEN The Benefactive Case

The BENEFACTIVE case is marked by the **Vc** value **-üe-** unless the preceding **Cr** stems ending in **-w** or **-y**, in which case the **Vc** value is **-ö'-**. The BENEFACTIVE identifies a noun for whose sake or benefit an action or event occurs or is done. As such, the BENEFACTIVE is similar to the DATIVE, except that the BENEFACTIVE implies a strong emphasis on the fact that the noun is more than simply the recipient or target of a dative action, but rather benefits in a tangible or consequential way from the action or event. It is usually translated by English 'for' in the sense of 'for the sake (i.e., benefit) of.' Examples of usage are *a toy **for the children**, We threw **him** a party, Go to the **teachers'** lounge*.

The BENEFACTIVE also translates the English phrases 'out of respect for,' 'for the sake of,' or 'in deference toward,' identifying the noun to which deference is paid within the context for an act, condition, or event. Examples of usage would be *He remained silent **for her sake**, They went on with the ceremony **out of respect for the families**, They dressed in robes **because of tradition***.

4.5.18 TSP The Transpositive Case

The TRANSPOSITIVE case is marked by the **Vc** value **-üo-** unless the preceding **Cr** stem ends in **-w**, in which case the **Vc** value is **-î'-**, or the preceding **Cr** stem ends in**-y**, in which case the **Vc** value is **-û'**. The TRANSPOSITIVE implies substitution of one noun for another. It translates English 'for' in the sense of 'on behalf of,' 'in place of,' or 'instead of' (i.e., 'as a substitution for'). Examples of usage are *The boss made the speech **for me**, She went up into the attic **for her brother*** (i.e., so he wouldn't have to).

4.5.19 CMM The Commutative Case

The COMMUTATIVE case is marked by the **Vc** value **-au-**. The COMMUTATIVE translates English 'for' in the sense of 'in exchange for' as in *You paid too much money **for that dress**, She kills **for thrills***.

4.5.20 COM The Comitative Case

The COMITATIVE case is marked by the **Vc** value **-eu-**. Similar to its counterpart in Uralic languages such as Finnish or Estonian, the COMITATIVE translates the English 'with' in its meaning of accompaniment (i.e., 'along with') as in *The child went **with the clown** to the party*. Like English 'with,' the COMITATIVE does not imply that the conjoined noun is necessarily engaged in the same activity or associated with the same verb as the head noun. For example, in the sentence *My father was walking with a loaf of bread*, the loaf of bread is not considered to be itself walking.

It should be noted, however, that the COMITATIVE is not used to imply mutually interactive or reciprocal activity between two nouns. Thus it would not be used in translating the sentences *They danced with each other* or *Mother wants to talk with you*. These would be translated using the RECIPROCAL valence of the verb, explained in Section 5.7. This distinction is illustrated even more clearly by comparing the following two sentences; the first would be translated using the COMITATIVE, the second would not: *This man fought with my father* (e.g., alongside him during the war) versus *This man fought with my father* (e.g., they had a fight with each other).

Note also that the COMITATIVE is not used to indicate instrumentality (English 'with' meaning 'by means of'). Thus, it is not used to translate sentences such as *I cut the meat with a knife*. As previously discussed in Section 4.3.8, instrumentality is indicated by use of the INSTRUMENTAL case. Likewise, it is not used to identify the resources or material(s) consumed in undertaking an act, as in He catches his fish with worms for which the COMPOSITIVE case is used.

4.5.21 CNJ The Conjunctive Case

The CONJUNCTIVE case is marked by the **Vc** value **-iu-**. The CONJUNCTIVE translates English 'with' in its meaning of 'in conjunction with,' i.e., to indicate that the noun is engaged in the same activity or a complementary activity as the conjoined noun. It should be distinguished from the COMITATIVE above, which indicates mere accompaniment. For example, in the *walking with a loaf of bread* example from above, it would be incorrect to use the CONJUNCTIVE case because that would signify the bread was walking, too. To further illustrate the usage, consider the sentence *I'm with the brigade*. Translating 'brigade' using the COMITATIVE would mean that 'I've come along (e.g., drove) with the brigade to the scene,' while using the CONJUNCTIVE would mean 'I'm a member of the brigade.' Additional examples where the CONJUNCTIVE would be used are *They skate with the best team, That teacher works well with children*.

4.5.22 UTL The Utilitative Case

The UTILITATIVE case is marked by the **Vc** value **-ou-**. The UTILITATIVE identifies a noun in the process of being utilized. This corresponds to the use of English 'with' where it refers to actual use in progress as in *A man **with a gun** ran into the room*. It should be distinguished from the INSTRUMENTAL (see Sec. 4.3.8) in that the latter indicates the implement used to accomplish an action, while the UTILITATIVE identifies a noun in use, but does not imply that the noun was the implement used to accomplish a stated action. For example, compare the sentence *The man **with an umbrella** was pushing a stroller in the rain* (UTILITATIVE) with *The man pushed a stroller in the rain **with an umbrella*** (INSTRUMENTAL). The first sentence implies the man was pushing a stroller with one hand while holding an open umbrella against the rain, whereas the second sentence has him using the umbrella to push the stroller. Another way to translate the UTILITATIVE would be to use an English gerundial construction as in *A **gun-wielding** man ran into the room* or *An **umbrella-toting** man pushed a stroller in the rain*.

Besides the INSTRUMENTAL, the UTILITATIVE should likewise be distinguished from the COMITATIVE case above, in that the COMITATIVE merely indicates accompaniment, while the UTILITATIVE indicates use in progress. For example, the sentence *Go sit next to the girl **with the book***, if translated using the COMITATIVE would merely identify a girl who has a book in her visible possession, while with the UTILITATIVE it would mean the girl is actually engaged in reading the book.

4.5.23 ABE The Abessive Case

The ABESSIVE case is marked by the **Vc** value **-ëu-**. The ABESSIVE is essentially the opposite of the COMITATIVE, translating the English 'without' or '-less' in the sense of 'unaccompanied by' or 'not having' as in *a day **without rain*** or *a **treeless** plain*. As noted in the next section below on the CONVERSIVE case, it is **not** used to translate 'without' when it means 'unless one has,' referring to a hypothetical exception to a potential outcome as in *I can't go on without love*.

4.5.24 CVS The Conversive Case

The CONVERSIVE case is marked by the **Vc** value **-öu-**. The CONVERSIVE is used in conjunction with hypothetical or potential contexts to identify a hypothetical exception to a potential outcome or an actual circumstance which alters or has altered a potential outcome. This translates two different ways into English. Where it indicates an exception to a hypothetical situation, it is translated by the conjunction 'unless' in verbal contexts, and by the preposition 'without' for nouns (note that 'without' in this sense does not correspond to its usual ABESSIVE usage in Sec. 4.5.23 above). If applied to a real or actual situation, it is translatable by such expressions as 'but for,' 'if not for,' 'if it wasn't for,' or 'if it wasn't on account of.' Example of usage: ***Without peace**, this society is doomed; **If not for the rain**, we would have had a good time*.

4.5.25 COR The Correlative Case

The CORRELATIVE case is marked by the **Vc** value **-ai'-**. The CORRELATIVE is used to indicate an abstract relationship, association, or conjunction between a noun and another noun or verb, including subjective, contextual, metaphorical, or symbolic associations. It translates general phrases such as 'relative to,' 'in relation to,' 'in correlation with,' 'in association with,' etc. It would be used in translating phrases such as ***career** goals, the soup **of the day**, the direction **of that road**, The elapsed time **relative to the distance** determines the winner, Our next topic is sex **and (**or **in) art*** (i.e., the relationship between art and sex). Additional examples are *years **of wonder**, the **Clown** Planet, **life** blood, city **of evil***. Note that the CORRELATIVE case would often be used to translate constructions for which English often uses an adjective, e.g., ***spatial** coordinates, the **political** economy, a **dangerous** situation* (i.e., a situation characterized by danger).

When used in contexts involving directional motion or spatial positioning is, the CORRELATIVE signifies the directional orientation or position of one noun relative to another, i.e., a noun relative to whose position in space another noun is being described for purposes of spatial orientation. To an English-speaker, the function of this case makes greater sense once one realizes that, in Ithkuil, most one-to-one spatial relationships are described by verbs, not prepositions, e.g., 'to be situated on the right,' 'to move beneath,' etc. Consequently, this use of the CORRELATIVE case can be thought of as expressing the phrase 'relative to.' Examples of how it would be used are *I'm standing four feet north **of the desk**, The one hanging above **the boxes** looks fresh, It lies at a 30° angle **relative to the tree**, He turned his back **on me**, The upstairs bedroom faces **the yard**, It's alongside **the desk*** (i.e., its lateral surface is oriented toward the desk).

As will be described in Section 5.4.2.3, the CORRELATIVE is used with verbal case-frames to convey the equivalent of simple relative clauses in Western languages.

4.5.26 DEP The Dependent Case

The DEPENDENT case is marked by the **Vc** value **-ui'-**. The DEPENDENT translates the English phrase 'depending on' signifying a noun as the contingency on which the reality of a main clause depends. Examples of usage would be ***Depending on the rain****, we'll go for a picnic; She may show up,* ***depending on her attitude****.*

The DEPENDENT should be distinguished from the PREDICATIVE case in Sec. 4.5.4, in that the former denotes contingency, while the PREDICATIVE denotes reliance.

4.5.27 PVS The Provisional Case

The PROVISIONAL case is marked by the **Vc** value **-ei'-**. The identifies the noun, situation, or circumstance on which the factuality of the main clause of the sentence depends, i.e., the required condition(s) which must come into existence for the situation described in the main clause to occur. This is translatable by such English phrases as 'provided (that),' 'on condition of,' 'only in case of,' or 'but only if,' e.g., ***Provided [there's] food****, I will attend the meeting; We will fight* ***only in case of war****.*

4.5.28 PTL The Postulative Case

The POSTULATIVE case is marked by the **Vc** value **-oi'-**. The operates somewhat similarly to the PROVISIONAL above, except that the POSTULATIVE implies a causal or consequential relationship (not merely a circumstantial one) between the pre-condition(s) and the circumstances of the main clause. Specifically, it identifies the noun, situation, or circumstance whose factuality has not yet come into existence, but, should it come into existence, will result in the consequence indicated by the main clause. This is translatable by English 'if,' or 'in case of.' Note that it does not translate English 'if' where it means 'whether' as in *I don't know if it's warm enough*, i.e., where the clause is meant only to convey uncertainty or optionality (but not a causal relationship between a potential condition and its consequences). Examples of usage: ***If [there's] snow****, I'm not going out;* ***In case of fire****, flee;* ***If friend****, welcome them,* ***if foe****, kill 'em.*

The example below is offered to further distinguish the use of the POSTULATIVE case from the PROVISIONAL case above:

PROVISIONAL: *We're packing umbrellas,* ***but only in case of bad weather*** (i.e., umbrellas will not be packed unless the weather is actually bad).

POSTULATIVE: *We're packing umbrellas* ***in case of bad weather*** (i.e., the umbrellas are being packed in preparation for the possibility of bad weather).

4.5.29 CON The Concessive Case

The CONCESSIVE case is marked by the **Vc** value **-au'-**. The CONCESSIVE case identifies a noun, situation, or circumstance which gives rise to an expectation of a certain result which, in fact, does not occur. This can be translated by various English prepositions, conjunctions, or phrases such as 'despite,' 'in spite of,' 'notwithstanding,' 'although,' 'regardless of,' 'no matter what,' etc. Examples of usage: ***In spite of his stupidity****, he passed the test;* ***The law notwithstanding****, I will stand my ground;* ***No matter how ignorant*** *(they may be), they are welcome,* ***Although foreigners****, we will let them attend the meeting.*

4.5.30 EXC The Exceptive Case

The EXCEPTIVE case is marked by the **Vc** value **-iu'-**. The EXCEPTIVE indicates a noun, situation, or circumstance which is an exception, or is exempted or excluded from the main clause, translatable by English 'except (for),' 'but (not),' or 'excluding.' Examples of usage: *She loves everybody* ***except clowns****; I like all animals,* ***excluding dogs****; He eats almost anything* ***but (not) spinach****.*

4.5.31 AVR The Aversive Case

The AVERSIVE case is marked by the **Vc** value **-eu'-**. The AVERSIVE identifies a noun as a source or object of fear and/or avoidance. With nouns, it translates expressions such as 'for fear of,' 'in order to avoid,' or 'in avoidance of.' With verb phrases (i.e., case-frames; see Sec. 5.2) , it would translate English 'lest.' Examples of usage are *She finished her plate* ***for fear of my wrath****, I traveled by night* ***to avoid the sun****.*

4.5.32 CMP The Comparative Case

The COMPARATIVE case is marked by the **Vc** value **-ou'-**. The COMPARATIVE identifies a noun being compared to another. It translates such expressions as 'as compared to,' or certain usages of 'versus' or 'as opposed to.' It is similar to the CONTRASTIVE case (see Section 4.5.2 above), except that it does not carry the sense of opposition, joint exclusivity, or either-or binary substitution of the CONTRASTIVE, but rather merely comparison/choice/preference from various options or along a spectrum or scale. With verbal case-frames (see Sec. 5.4) it would translate as 'whereas' or 'while' (in its synonymous usage to 'whereas'). Examples are *She chose the red one* ***as opposed to the others****, Sam drives a van* ***versus Joe****, who prefers a truck, You'll find it in Room* ***Twelve*** [as opposed to a room with a different number].

4.5.33 Examples of Associative Cases in Use

âkyuál vlalêx

STA-'coffee bean drink'-**PAR**-NRM/DEL/M/CSL/UNI-FML STA-'contain via gravity/basin'-NRM/DEL/M/CSL/UNI-SIZ$_2$/3-IFL

'cup of coffee' LISTEN

âkniel

STA-'pet.snake'-**CRS**-NRM/DEL/M/CSL/UNI-IFL

'as opposed to the pet snake / rather than the pet snake' LISTEN

uçtál op^{h}iol

STA-'wall.of.room'-OBL-NRM/DEL/M/CSL/UNI-FML STA-'wood'-**CPS**-NRM/DEL/M/CSL/UNI-IFL

'wooden wall' LISTEN

t^{h}arl riöč

STA-'law/statute'-OBL-NRM/DEL/M/ASO/AGG-IFL STA-'reason'-**PRD**-NRM/DEL/A/ASO/UNI-IFL

'laws based in reason' LISTEN

Opçav ökcul ödhá'šk.

DYN-'(self).directed.motion.throughout.three.dimensional.volume'-NRM/PRX/N/VAR/UNI-IFL STA-'virus'-IND-NRM/DEL/M/CSL/UNI-IFL STA-'drink of water'-**MED**-NRM/DEL/M/CSL/CST-FML

'The virus spreads via the drinking water.' LISTEN

âkyú'l vlalêx

STA-'coffee bean drink'-**APL**-NRM/DEL/M/CSL/UNI-FML STA-'contain via gravity/basin'-OBL-NRM/DEL/M/CSL/UNI-SIZ$_2$/3-IFL

'cup being used for coffee'

âkyé'l vlalêx

STA-'coffee bean drink'-**PUR**-NRM/DEL/M/CSL/UNI-FML STA-'contain via gravity/basin'-DEL/M/CSL/UNI-SIZ$_2$/3-IFL

'coffee cup' LISTEN

esro'láun

STA-'prepared/cooked food'-**CSD**-NRM/DEL/M/CSL/UNI-FML-AGC$_2$/2

'according to the cook' LISTEN

Idawelar êmmil ukšeal.
DYN-‘nickname/label’-DIR-NRM/DEL/M/CSL/UNI-NA1_1/5-IFL STA-‘male child’-AFF-NRM/DEL/M/CSL/UNI-IFL STA-‘nerd’-**ESS**-NRM/DEL/M/CSL/UNI-IFL
‘Don't call the boy a nerd.’

las almeodh
STA-‘voice’-OBL-NRM/PRX/M/CSL/UNI-IFL STA-‘musical.note’-**ASI**-NRM/DEL/PRX/N/CSL/UNI-IFL
‘a voice like music’

eqtèöck
STA-‘degree.of.happiness’-**FUN**-NRM/PRX/A/CSL/UNI-FML
‘happily /in a manner characterized by happiness’ LISTEN

¯Sakč’a tô myicka zboack.
CPT-STA-‘change.state’-NRM/GRA/U/CSL/UNI-IFL 1m/ATT STA-‘sense.of.gratitude’-AFF-NRM/PRX/A/CSL/UNI-IFL
STA-‘feeling.of.anger’-**TFM**-NRM/PRX/A/CSL/UNI-IFL
‘My sense of gratitude gradually turned into anger.’ LISTEN

ultánļ açk^hwoeţ
STA-‘page.of.writing’-OBL-NRM/DEL/M/SEG/COA-FML STA-‘porcupine’-**REF**-NRM/DEL/N/CSL/UNI-IFL
‘a book about porcupines’ LISTEN

kpöal
STA-‘extent of spatial length’-**CLA**-NRM/DEL/M/CSL/UNI-IFL
‘lengthwise’ LISTEN

4.6 THE TEMPORAL CASES

The temporal cases deal with contexts relating to time. In many respects, Ithkuil analyzes time similarly to Western languages, particularly in the ability to spatially compartmentalize time as seen in such English phrases as ‘in 3 hours,’ ‘for 5 years,’ ‘day by day,’ and ‘per month,’ as well as in analyzing time as progressively linear using concepts such as ‘before,’ ‘after,’ ‘during,’ ‘until,’ and ‘ago.’ The fifteen temporal cases are the SIMULTANEITIVE, ASSESSIVE, CONCURSIVE, ACCESSIVE, DIFFUSIVE, PERIODIC, PROLAPSIVE, PRECURSIVE, POSTCURSIVE, ELAPSIVE, ALLAPSIVE, INTERPOLATIVE, EPISODIC, PROLIMITIVE, and LIMITATIVE. Following are explanations of the function and usage of each case. Actual Ithkuil examples of these cases in use are provided in Sec. 4.6.16.

4.6.1 SML The Simultaneitive Case

The SIMULTANEITIVE case is marked by the **Vc** value **-a’a-**, or optionally **-a’V-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The SIMULTANEITIVE identifies a noun signifying a time period simultaneous to the act, state, or event under discussion. Examples would be *I was in class* ***at the same time as his accident****, I worked a side-job* ***concurrent to the strike****, She laughed* ***simultaneously with my coughing fit****.*

4.6.2 ASS The Assessive Case

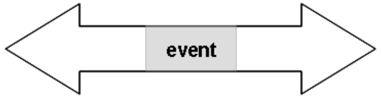
The ASSESSIVE case is marked by the **Vc** value **-e’a-**, or optionally **-e’V-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The ASSESSIVE specifies the unit of time by which a contextual ratio of measurement is created, corresponding to English ‘by’ or ‘per.’ Examples would be *My lawyer charges* ***by the minute****, He publishes several books* ***each year****, The clown drove the fun-mobile at 90 miles* ***per hour****.*

4.6.3 CNR The Concursive Case

The CONCURSIVE case is marked by the **Vc** value **-i’a-**, or optionally **-i’V-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

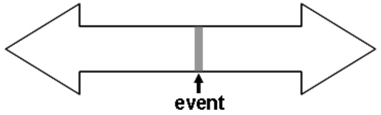
The CONCURSIVE serves as a “temporal locative” signifying the beginning and ending boundaries of time during or at which an act, state, or event occurs, the whole of which being considered a single contextual situation. Examples of usage would be *He prays* ***during lunch****, She studied hard* ***last night****, I won’t visit until* ***then*** (i.e., during that period in time).



4.6.4 ACS The Accessive Case

The ACCESSIVE case is marked by the **Vc** value **-o’a-**, or optionally **-o’V-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

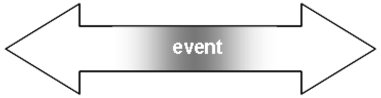
The ACCESSIVE is similar to the CONCURSIVE, except that the time identified is specific to a single moment or a brief, highly delimited period seen in context as one moment, i.e., the point in time at which something occurs. Examples of usage would be *Dinner will be served* ***at sunset****;* ***When*** (i.e., at the moment that) *you hear his voice, call in the clowns;* ***Upon impact****, both cars were accelerating.*



4.6.5 DFF The Diffusive Case

The DIFFUSIVE case is marked by the **Vc** value **-u’a-**, or optionally **-u’V-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

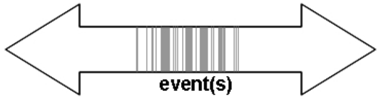
The DIFFUSIVE is yet another temporal locative similar to the CONCURSIVE, except that the time period identified does not have explicit boundaries, only being centered on the period identified by the noun. It is best expressed by the English phrase ‘during the time surrounding….’ Examples of usage would be *Most cars had tail fins* ***in those days****; I was abroad* ***during that era****;* ***At the time of his death****, the number of clowns was increasing;* ***Over the past several seasons****, your talent has matured.*



4.6.6 PER The Periodic Case

The PERIODIC case is marked by the **Vc** value **-ö’a-**, or optionally **-ö’V-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

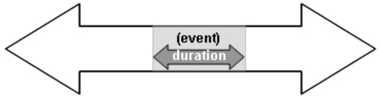
The PERIODIC identifies the span of time at some point(s) during which, an act, condition, or event occurs. This case should be distinguished from the CONCURSIVE above, in that the CONCURSIVE signifies a contextually single holistic event, whereas the PERIODIC specifies a time frame in which separate events, repetitions, or durationally extended acts or states take place. Examples would be *He wrote the novel* ***in six months****, These clowns can corrupt your child* ***within a few days****, The woman has been ill a lot* ***this year****,* ***For the last several concerts****, my voice has been deteriorating*.



4.6.7 PRO The Prolapsive Case

The PROLAPSIVE case is marked by the **Vc** value **-üʼa-** (or **-ëuʼa-** if the preceding **Cr** stem ends in **-w** or **-y**). Optionally the **Vc** value can be **-üʼV-** (or **-ëuʼV-** if the preceding **Cr** stem ends in **-w** or **-y**), where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The PROLAPSIVE signifies the duration of an act, condition, or event, i.e., how long it takes or lasts. This case should be distinguished from the PERIODIC above, in that the PROLAPSIVE specifies the actual duration of the act, condition, or event, whereas the PERIODIC merely specifies a contextual span of time at some point(s) during which, an act, condition, or event occurs. Examples would be *He prayed* ***through lunch****,* ***While he was dying****, the number of clowns increased, It rained* ***all night****, It took* ***three days*** *for the fever to break, She sang* ***for an hour***.



4.6.8 PCV The Precursive Case

The PRECURSIVE case is marked by the **Vc** value **-aiʼa-**, or optionally **-aiʼV-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The PRECURSIVE identifies a point in time prior to which an act, condition, or event occurs. Examples would be *This situation occurred* ***before the war****, It rained* ***prior to his appearance****, There will be a presentation* ***preceding the banquet***.

4.6.9 PCR The Postcursive Case

The POSTCURSIVE case is marked by the **Vc** value **-eiʼa-**, or optionally **-eiʼV-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The POSTCURSIVE identifies a point in time after which an act, condition, or event occurs. Examples would be *This situation occurred* ***after the war****, It rained* ***subsequent to his appearance****, There will be a presentation* ***following the banquet***.

4.6.10 ELP The Elapsive Case

The ELAPSIVE case is marked by the **Vc** value **-uiʼa-**, or optionally **-uiʼV-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The ELAPSIVE identifies the amount of time that has passed between the contextual present and the time of the act, condition, or event being spoken of. It corresponds to English ‘…ago.’ Examples would be ***Four years ago*** *I was a student;* ***Going back three generations****, women could not even vote.*

4.6.11 ALP The Allapsive Case

The ALLAPSIVE case is marked by the **Vc** value **-oiʼa-**, or optionally **-oiʼV-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The ALLAPSIVE identifies the amount of time that expected to pass between the contextual present and the time of a future act, condition, or event. Examples would be ***Four years from now****, I will be a student;* ***Looking ahead three generations****, clowns will rule the world; I will be home* ***in three days****; Little did he know that* ***two months later*** *he’d be a rich man*.

4.6.12 INP The Interpolative Case

The INTERPOLATIVE case is marked by the **Vc** value **-ëiʼa-**, or optionally **-ëiʼV-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The INTERPOLATIVE is used within the context of repetitive or iterative acts, states, and events and signifies the duration of each repetition. Examples of usage are *We heard several* ***five-second*** *snippets of music; Between lightning bursts were intervals* ***of several seconds****; She gets recurring migraines,* ***each lasting hours***.

4.6.13 EPS The Episodic Case

The EPISODIC case is marked by the **Vc** value **-auʼa-**, or optionally **-auʼV-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The EPISODIC identifies a contextually recurring time-period. Examples of usage are *The man talks with his mother* ***every three days****;* ***Each year****, I travel to the Clown Planet; He works* ***nights****;* ***By day****, she is an artisan; The clowns visit us* ***on Sundays***.

4.6.14 PLM The Prolimitive Case

The PROLIMITIVE case is marked by the **Vc** value **-euʼa-**, or optionally **-euʼV-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The PROLIMITIVE defines a point in time which signifies a temporal limit to further contextual activity, i.e., the time by which some act, state, or event occurs. Examples of usage would be ***By the time of your graduation****, I want you out of the house; Please be on board* ***by midnight****;* ***By the time of the raid****, there was nothing left to steal.*

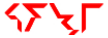
4.6.15 LIM The Limitative Case

The LIMITATIVE case is marked by the **Vc** value **-iuʼa-**, or optionally **-iuʼV-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The LIMITATIVE signifies a event culminating an anticipatory context. It translates the English expression ‘in time for.’ Examples of usage are *He arrived* ***in time for dinner****, Be inside the Big Tent* ***in time for the clowns***.

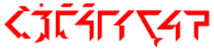
4.6.16 Examples of Temporal Cases in Use

ţkoi’al žial
STA-‘three’-**ALP**-NRM/DEL/M/CSL/UNIIFL STA-‘day (24-hr. period)’-PAR-NRM/DEL/M/CSL/UNI-IFL
‘three days from now’ LISTEN

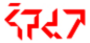


qô teu’at’
ma-ATT STA-‘life’-**PLM**-NRM/TRM/M/CSL/UNI-IFL
‘by the time of his death’ LISTEN

llau’atļuarl
STA-‘one’-**EPS**-NRM/DEL/M/CSL/DCT-CAL$_2$/1-IFL
‘on Sundays’



Igvarsukt tu ţkü’al žial.
DYN-‘article of clothing’-NRM/PRX/M/CSL/AGG-DEF$_1$/9-IFL 1m-IND STA-‘three’-**PRO**-NRM/DEL/M/CSL/UNI-IFL
IFL-‘day (24-hr. period)’-PAR-NRM/DEL/M/CSL/UNI
‘I’ve been (deliberately) wearing these clothes for three days.’ LISTEN



žô c^{h}ei’as
1m+2u+ua-ATT STA-‘grief’-**PCR**-NRM/PRX/M/CSL/UNI-IFL
‘after our period of grief’ LISTEN

4.7 THE SPATIAL CASES

As noted previously, prepositions do not exist in Ithkuil. While various non-Indo-European languages such as Finnish, Hungarian, Basque and the North Caucasian languages accomplish the equivalent of prepositional relationships using noun cases, such relationships are usually accomplished in Ithkuil via verbal formatives (e.g., a verb translatable as ‘to be inside of’ instead of a preposition ‘inside of’). Nevertheless, there are six cases corresponding to certain types of spatial relationships. These are the LOCATIVE, ORIENTATIVE, PROCURSIVE, ALLATIVE, ABLATIVE, and NAVIGATIVE.

Also: see Section 4.5.25 above regarding the use of the CORRELATIVE case in sentences involving spatial direction or orientation.

Following are explanations of the function and usage of each case. Actual Ithkuil examples of these cases in use are provided in Sec. 4.7.7.

4.7.1 LOC The Locative Case

The LOCATIVE case is marked by the **Vc** value **-â’a-**, or optionally **-â’V-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The LOCATIVE signifies general static position in the same contextual place as the specified location, translatable by many English prepositions such as ‘at,’ ‘in,’ ‘on,’ or ‘by,’ depending on the context, e.g., *in that building, by the wall, on the street, at my house*.

4.7.2 ORI The Orientative Case

The ORIENTATIVE case is marked by the **Vc** value **-ê’a-**, or optionally **-ê’V-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The ORIENTATIVE identifies the noun (usually a subcomponent or body part) which serves as the forward “end” of a spatially orientated axis aligned to a vector of motion. This is translatable into English using elements such as ‘-ward(s)’ or ‘-first’ in conjunction with portions of objects in a spatio-orientational context, e.g., *He jumped in* ***feet-first****, The car rolled* ***backward***. The ORIENTATIVE allows for the extension of this concept to contexts which seem awkward in English translation, e.g., *He walked “butt-ward” down the street* (i.e., backward with his butt protruding frontwards, leading the way).

street (i.e., backward with his butt protruding frontwards, leading the way).

4.7.3 PSV The Procursive Case

The PROCURSIVE case is marked by the **Vc** value **-ô’a-**, or optionally **-ô’V-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The PROCURSIVE identifies a noun (often a subcomponent or body part) which serves as the orientational reference point, interactional surface or interface relative to the direction of interaction with, or position in space of, a second noun. This second noun usually appears in the ALLATIVE case (see below). Examples of use would be *They collided* ***sideways****, She turned* ***her back*** *on him, The chair* ***“faced”*** *the doorway* (i.e., The chair stood with it’s seat and back aligned toward the doorway).

4.7.4 ALL The Allative Case

The ALLATIVE case is marked by either the **Vc** value **-î’a-** or **-û’a-**; if the preceding **Cr** stem ends in **-w**, the **Vc** value is **-î’V-**, whereas if the preceding **Cr** stem ends in **-y**, the **Vc** value is **-û’V-**; for other **Cr** stems, either Vc value is permissible. Optionally the **Vc** value can be **-î’V-** or **-û’V-** (under the same rules for **Cr** stems ending in **-w** or **-y**), where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

When used in the context of explicit or implied directional motion, the ALLATIVE signifies the direction of motion, translatable by ‘to’ or ‘toward(s)’ or the suffix ‘-ward(s)’ in English. Note that the ALLATIVE in no way implies that the object is intended as the final or intended destination or goal of the motion or movement, only the direction of the movement. Examples would be *I wandered* ***eastward****, The little girl ran* ***toward me****, Throw the rock* ***at that clown****!, We headed* ***for home***.

4.7.5 ABL The Ablative Case

The ABLATIVE case is marked by the **Vc** value **-ëu’a-**, or optionally **-ëu’V-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if both phonotactically and morpho-phonologically permissible (i.e., if it’s deletion does not violate phonotactic rules (see Section 1.4) and does not cause confusion or ambiguity in parsing the various consonants and vowels of the formative into their respective morphemes (i.e., their grammatical components).

When used in context of explicit or implied directional motion, the ABLATIVE signifies the general directional origin of movement away from or out of. It does not specify the actual point of origin or departure. Examples would be *He came* ***out of the east****, She walked here* ***from (the direction of) the river***.

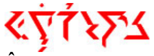
When used in contexts where directional motion is not implied, the ABLATIVE signifies a reverse directional orientation of one noun relative to another, e.g., *He faced* ***away from me***.

4.7.6 NAV The Navigative Case

The NAVIGATIVE case is marked by the **Vc** value **-ou’a-**, or optionally **-ou’V-**, where **V** has the value of the formative’s **Vr** affix (from Slot IV); if choosing the latter value for **Vc**, then the formative’s **Vr** affix can be deleted from Slot IV if it is in word-initial position.

The NAVIGATIVE identifies the noun relative to whose vector, arc, or trajectory of motion an act, state, or event takes place. This is particularly important, as we will see in Section 10.3.3 that Ithkuil modes of positional reference are tied into the vectors of movement or the configurational axes of objects in the environment such as the sun or the length of a room. Example uses would be *I looked* ***down the street****, We aligned it perpendicular* ***to the path of the sun****, He crossed the room* ***diagonally*** (i.e., walked diagonally relative to the long axis of the room.)

4.7.7 Examples of Spatial Cases in Use



Ûb eikkradwa smou’olâxh.
EXN$_1$/6 DYN-‘move.along.obliquely.vertical.path.between.two.points’-RPV/PRX/N/CSL/UNI-IFL STA-‘valley’-**NAV**-NRM/DEL/M/CSL/UNI-SCO$_2$/5-IFL
The path through the canyon is steep. LISTEN

Ičatosk êti prâ'ol

DYN-'physical.contact'-NRM/DEL/M/CSL/UNI-FRC$_1$/7-IFL GEN-1m-AFF STA-'leg'-**LOC**-NRM/DEL/M/CSL/UNI-IFL

'I got hit on the leg. LISTEN

Uajatiuçkims ţê'al qi.

DYN-'downward movement'-NRM/DEL/U/CSL/UNI-PHY$_2$/1-AGN$_1$/1-IFL STA-'head'-**ORI**-NRM/DEL/M/CSL/UNI-IFL ma-AFF

He fell headfirst to his death. LISTEN

4.8 THE VOCATIVE

The VOCATIVE case is marked by the **Vc** value **-ë-**. The VOCATIVE is used when a nominal formative is used in direct address. In modern colloquial English, there is no vocative form, and the base form of the noun, name, or pronoun is used, usually followed by an exclamation point if the vocative functions as its own sentence, e.g., *'**Bill!**'* or *'Please come this way, **sir**'* or *'**Driver**, take me to 53rd and 3rd.'* However, in archaic, poetic, formal or dramatic contexts, English utilizes the vocative particle "o", as in *'**O Time**, thy pyramids!'* or *'Why me, **o lord**?'*

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FAQs | 1 Phonology | 5 Verb Morphology | 9 Syntax | List of Abbreviations
Links of Interest | 2 Morpho-Phonology | 6 More Verb Morphology | 10 Lexico-Semantics | The Lexicon
Updates / News | 3 Basic Morphology | 7 Suffixes | 11 The Writing System | Texts

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Ithkuil: A Philosophical Design for a Hypothetical Language

Home | Introduction | 4 Case Morphology | 8 Adjuncts | 12 The Number System
FAQs | 1 Phonology | 5 Verb Morphology | 9 Syntax | List of Abbreviations
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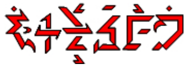
Chapter 5: Verb Morphology

5.1 Function
5.2 Mood
5.3 Illocution
5.4 Case-Frames & Relation
5.5 Phase
5.6 Sanction
5.7 Valence
5.8 Version
5.9 Validation
5.10 Aspect
5.11 Bias

The Ithkuil verbal formative (termed "verb" in this chapter for simplicity's sake) is the workhorse of the language, inflecting for twenty-two different morphological categories. These include the seven categories shared by all formatives and already discussed in Chapter 3: **Configuration, Affiliation, Perspective, Extension, Essence, Context,** and **Designation**. Additionally the following fifteen categories apply solely to verbs: **Function, Mood, Illocution, Case-Frame, Relation, Phase, Sanction, Valence, Version, Validation, Aspect, Format, Modality, Level,** and **Bias**. Additionally, Ithkuil allows for stem incorporation, i.e., for one formative stem to be incorporated inside of another to expand the latter's semantic range. The verb can also theoretically take any number of the approximately 1800 suffixes available to formatives. Such suffixes are analyzed in Chapter 7.

The full structure of a Ithkuil verbal formative is in two parts, i.e., having two distinct words, these being a **valence/modality adjunct** and the **verb** itself. In simple sentences, the valence/modality adjunct may be missing. The following extreme example of a fully inflected Ithkuil verb illustrates all 22 of the above-listed categories, as well as demonstrating an incorporated stem:



hreštrul-lyö'ň ¯hnič^{h}âçtau'wètkwöu

hr.e.štr.u.l-ly.ö.'ň	**¯.hn.i.č^{h}.â.çt.au.'wè.tkw.öu**
Valence: DEMONSTRATIVE Level: SURPASSIVE-RELATIVE Phase: RECURRENT Sanction: REFUTATIVE Illocution: DIRECTIVE Modality: DESIDERATIVE Aspect 1: REGRESSIVE Apect 2: IMMINENT Bias: COINCIDENTAL	Validation: PRESUMPTIVE 2 Function: DYNAMIC Pattern/Stem of Main Root: *Pattern 1, Stem 1* Incorporated Root: **č^{h}** *'make/construct'* Pattern/Stem of Inc. Root: *Pattern 1, Stem 1* Designation of Incorporated Root: FORMAL Main Root: **çt** *'chamber; spatial enclosure'* Case-Frame: CONCESSIVE Mood: SUBJUNCTIVE Essence: REPRESENTATIVE Extension: PROXIMAL Perspective: ABSTRACT Configuration: COMPOSITE Affiliation: COALESCENT Context: AMALGAMATIVE Format: SUBSEQUENT Version: COMPLETIVE Designation: FORMAL Relation: UNFRAMED

A highly stilted but approximate English translation of the above, capturing as many of the nuances of the Ithkuil phrase as possible, would be: '*...despite presumably being on the verge, contrary to the allegation, of just so happening to want to succeed in maybe ordering a periodic return to the honorable practice of superlative architecture for others to follow by example.*'

Of the 15 morphological categories particular to verbal formatives, we will examine in this chapter those eleven of them which usually constitute part of the verbal formative itself (Function, Mood, Illocution, Case-Frame, Relation, Phase, Sanction, Valence, Version, Validation and Aspect). The remaining categories specific to valence/modality adjuncts (Modality, Level, and Bias) will be described in Chapter 6. Additionally, the category of Format, while displayed within the formative, is closely tied to the phenomenon of stem incorporation, which is also discussed in Chapter 6. Therefore, Format will be discussed in that chapter.

5.1 FUNCTION

Function refers to the general relationship a verb has to its noun participants based on whether the verb represents an existential or psychological state, a dynamic action or event, a mere statement of X = Y identification, or a description. Without a standardized system for the lexico-semantic function of verbs, the meaning of such a form could only be learned from hearing others using it in context.

Note that, although Function is being described here in the chapter on Verbs, Ithkuil nouns, too, carry a Function, specifically the STATIVE function, in that they manifest an inherent, existential (i.e., non-dynamic) state of matter/energy. Because a formative's Function changes only for verbs, not nouns, Function is being discussed in this chapter.

As previously described in Section 2.2.2, Function is shown by the **Vr** affix in Slot IV, which also conveys the main root's Stem and Pattern.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	**VL)**	**Cg/Cs)**	**Vr**	**(Cx/Cv**	**Vp/VL)**	**Cr**	**Vc**	**Ci +Vi**	**Ca**	**VxC**	**(Vf**	**(’Cb))**	**[tone]**	**[stress]**
Phase + Sanction	Valence	Validation OR Aspect (+ Mood)t	Pattern + Stem + **Function**	Incorp.Root OR Phase + Sanction	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designation + Relation

The values of **Vr-** by Stem and Pattern and Function are shown in Table 8 below.

Table 8: Values of Vr by Stem, Pattern, and Function (see Section 2.2.2 for a discussion of Stem and Pattern)

	Pattern 1			**Pattern 2**			**Pattern 3**		
	Stem 1	Stem 2	Stem 3	Stem 1	Stem 2	Stem 3	Stem 1	Stem 2	Stem 3
Function									
STATIVE	**(a-)**	**e-**	**u-**	**o-**	**ö-**	**î- / û-**	**â-**	**ê-**	**ô-**
DYNAMIC	**i-**	**ai-**	**ei-**	**au-**	**eu-**	**iu-**	**ia- / ua-**	**ie- / ue-**	**io- / uo-**
MANIFESTIVE	**ui-**	**ü- / ou-**	**ëi-**	**ae-**	**ea-**	**oa-**	**üa- / aì-**	**iù- / uì-**	**iö- / uö-**
DESCRIPTIVE	**oi-**	**eo-**	**eö-**	**oe-**	**öe-**	**ëu-**	**üo- / oì-**	**üe- / eì-**	**üö- / aù-**

The four Functions are the STATIVE, DYNAMIC, MANIFESTIVE, and DESCRIPTIVE. They are described in the following sections. Note that the previous version of Ithkuil, as well as Ilaksh, had additional functions (previously called Conflations) than the current four. Due to Ithkuil's new stem-incorporation abilities (described in Section 6.4), those additional functions are no longer necessary.

5.1.1 STA The Stative

The STATIVE function indicates a stative manifestation, i.e. to be in a non-causal, non-dynamic (temporary or permanent) state, including states of mind, non-dynamic or affictive physical states (e.g., something being warm, but not making something warm), as well as being the Function associated with all formatives acting as nouns. However, it does NOT mean "be" in the sense of X=Y copula identification as in "I am John."

5.1.2 DYN The Dynamic

DYNAMIC function indicates that the verb refers to a tangible or physical act or cause-and-effect event: to perform the action of X; to do what X does; to carry out X's function. Note that the choice of whether a particular situation is to be considered STATIVE or DYNAMIC can be subjective. For example, if a person is chronically coughing due to an illness, one can describe the coughing using either the DYNAMIC (to focus for example on the paroxysmal movements and physical processes undergone by the person during each cough), or the STATIVE (to let the reader/listener know you consider the coughing to be merely a manifestation of an existential state, e.g., an illness, in which the physical motions and processes associated with each cough are not the relevant issue.

In the examples from Section 4.3.12 involving anger-inducing clowns and burning trees, we likewise saw the difference in meaning between using STATIVE versus DYNAMIC function for otherwise identical sentences.

5.1.3 MNF The Manifestive

MANIFESTIVE function indicates that the verb represents a manifestion or naming of the identity of a specific entity; this is the nearest equivalent to the X=Y "be" copula of identification in Western languages, as in *She is a manager, That man is secretly a clown, Dogs are mammals, Mrs. Beasly is a fat crone.*

5.1.4 DSC The Descriptive

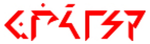
DESCRIPTIVE function indicates descriptive manifestation, i.e., to appear or manifest in the manner of. This sense is the nearest Ithkuil equivalent to English adjectives.

5.1.5 Examples of Function

Here follow examples of the four functions applied to the same stem **egrá-** 'prepare(d) food':

STA	STATIVE	**egrá-**	*'(to be in) a state of preparing food'*
DYN	DYNAMIC	**aigrá-**	*'prepare food'*
MNF	MANIFESTIVE	**ügrá-**	*'to be prepared food'*
DSC	DESCRIPTIVE	**eográ-**	*'to be like prepared food'*

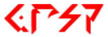
Additional examples of Function:



Iek'ás to p^{h}el.

DYN-'burn'-NRM/PRX/M/CSL/UNI-FML 1M-ERG STA-'tree'-ABS-NRM/DEL/M/CSL/UNI-IFL

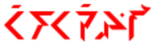
I burn the tree. LISTEN



Êk'ás p^{h}el.

STA-'burn'-NRM/PRX/M/CSL/UNI-FML **STA**-'tree'-ABS-NRM/DEL/M/CSL/UNI-IFL

The tree is burning / The tree is in flames. LISTEN



¯Qa uip^{h}al êêk'öasa.

mi-OBL **MNF**-'tree'-NRM/DEL/M/CSL/UNI-IFL FRAMED-FML-**STA**-'burn'-COR-NRM/PRX/M/CSL/UNI

It is a burning tree / It is a tree in flames. LISTEN

¯Qa üek’ás.
mi-OBL **DSC**-‘burn’-NRM/PRX/M/CSL/UNI-FML
It is flame-like / It reminds one of burning flames. LISTEN

5.2 MOOD

Most languages have a morphological category for verbs known as “mood,” serving to indicate specific attitudes or perspectives on the act, condition, or event, or the degree of factuality involved. Example moods common to Western languages include the indicative (factual utterances), subjunctive (showing doubt or probability, expressed by ‘may/might’ in English), imperative (indicating commands, e.g., *Go now!, Sing it for us!*), conditional (expressing hypotheticals, e.g., *She would travel if she could*), optative (indicating wishes, hopes, expectations, e.g., *I wish he’d go, I expect him to be here*), and hortative (indicating exhortations, e.g., *May he live 100 years! Let them see for themselves!*).

We will see later in Section 5.3 that in Ithkuil the functions of certain moods in Western languages correspond not to Mood, but to the grammatical category of Illocution, specifically where Western moods function to describe types of speech acts. In Ithkuil, moods simply convey a two-fold distinction as to whether the factuality of an utterance is certain or uncertain, combined with a four-way distinction as to whether the factuality of an explicit or implicit assumption underlying the utterance (i.e., a presupposition) is true, false, unknown, or a determinant of the factuality of the utterance. This twofold by fourfold matrix renders a total of eight moods in Ithkuil.

The eight moods are FACTUAL, SUBJUNCTIVE, ASSUMPTIVE, SPECULATIVE, COUNTERFACTIVE, HYPOTHETICAL, IMPLICATIVE, and ASCRIPTIVE. They are shown in conjunction with the morphological category of Illocution (see Section 5.3) by the **Ci+Vi** infix placed in Slot IX. The **Ci+Vi** infix is of the form consonant **Ci** followed by a vowel **Vi**.

(NOTE: Under certain circumstances, as an alternate to the **Ci+Vi** infix in Slot IX, Mood can be shown via the **Cs** prefix in Slot III usually used to show the category of Aspect. These circumstances are described later in Section 5.10 on Aspect.)

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/VL)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	(’Cb))	**[tone]**	**[stress]**
Phase + Sanction	Valence	Validation OR Aspect (+ Mood)	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + **Mood**	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designa-tion + Relation

The consonant half of the infix, **Ci**, has three different forms: **-w-**, **-y-**, and **-h-**.

NOTE: If the formative’s **Vc** case affix is a diphthong ending in **-u** (i.e., au, eu, iu, ou, öu, ëu), the **-w-** value of **Ci** changes to **-hw-** and the final **-u** of the Vc diphthong is deleted. Thus, adding the **Ci+Vi** infix **-wa-** to the formative *daus* results in *dahwas*, not *dauwas*.

Also, if the formative’s **Vc** case affix is a diphthong ending in **-i** (i.e., ai, ei, oi, ui, öi, ëi), the **-y-**value of **Ci** changes from to **-hw-** (while the **Vc** diphthong is left intact). Thus, adding the **Ci+Vi** infix **-ya-** to the formative *dais* results in *daihwas*, not *daiyas*.

Table 9 below shows the values of the **Ci+Vi** infix by Illocution and Mood.

Table 9: Ci + Vi infix values indicating 6 Illocutions x 8 Moods

	MOOD							
ILLOCUTION (see Sec. 5.3) ↓	FAC	SUB	ASM	SPC	COU	HYP	IPL	ASC
1 ASSERTIVE	**(-wë)***	**-wa**	**-yë**	**-ya**	**-yû**	**-hë**	**-ha**	**-hû / -hî**
2 DIRECTIVE	**-we**	**-wö**	**-ye**	**-yö**	**-yeu / -wei**	**-he**	**-hö**	**-hei**
3 INTERROGATIVE	**-wu**	**-wâ**	**-yu**	**-yâ**	**-yau / -wai**	**-hu**	**-hâ**	**-hai**
4 ADMONITIVE	**-wo**	**-wê**	**-yo**	**-yê**	**-you / -woi**	**-ho**	**-hê**	**-hoi**
5 HORTATIVE	**-wi**	**-wô**	**-yi**	**-yô**	**-yiu / -wui**	**-hi**	**-hô**	**-hui**
6 DECLARATIVE **	**-wî**	—	—	—	—	—	—	—

* The combination of FACTUAL Mood + ASSERTIVE Illocution is usually unmarked. It is marked by the infix -**wë**- only in certain cases where Slots V and VI are filled by the **Cv** and **VL** affixes (see note in Section 5.5 for details).
* * The DECLARATIVE Illocution can only be used in the FACTUAL mood.

NOTE: The category of Mood (along with the category of Aspect) can alternately be shown via the **Cs** affix in Slot III; this will be discussed in Section 5.10. Additionally the **Cs** Mood/Aspect affix can be placed into a verbal adjunct rather than being shown in the formative; this will be discussed in Section 6.3.1.

The function of the eight moods is described in the sections immediately below.

5.2.1 FAC The Factual

The FACTUAL mood signifies that the factuality of the speaker’s statement is certain and that there either is no underlying presupposition to the statement, or if there is, its factuality is also certain or has no bearing on the factuality of the statement. Examples:

Eglas âmmiļ qê.
STA-‘illness’-[**FAC**]-NRM/PRX/M/CSL/UNI-IFL STA-‘child.offspring’-AFF-NRM/DEL/M/CSL/AGG ma-GEN
His kids are ill. [i.e., it is known he has kids and it is known they are ill] LISTEN

Hëtiun-n ivigwaŗ̌lokkai ţei.
PRL-ITV-**FAC** DYN-[inc.stem: ‘recreation.leisure’]-‘ambulate’-NRM/DEL/M/CSL/CPN-TPP$_1$/7-ISR 1+ma-ACT
She and I are taking a walk later on. [i.e., it is our intention and we have the opportunity to do so]

Uzlas gvarl âpcââl.
STA-‘inside-out’-NRM/PRX/M/CSL/UNI-[**FAC**]-IFL STA-‘article of clothing’-OBL-NRM/DEL/M/ASO/AGG-IFL STA-‘wife’-POS-NRM/DEL/M/CSL/UNI-FML
His wife’s clothes are inside-out. LISTEN

5.2.2 SUB The Subjunctive

The SUBJUNCTIVE mood indicates that the factuality of an explicit or implicit presupposition underlying the statement is certain, but the factuality of the speaker’s statement itself is questionable or uncertain, the specific nuance of factuality intended being subject to the particular Bias and Validation associated with the verb. Corresponds roughly with English ‘may,’ ‘maybe’ or ‘might,’ with the added distinction that an explicit or implicit (i.e., underlying) presupposition is true. Examples:

Eglawas âmmiļ qê.
STA-‘illness’-**SUB**-NRM/PRX/M/CSL/UNI-IFL STA-‘child.offspring’-AFF-NRM/DEL/M/CSL/AGG ma-GEN
Maybe his kids are ill. [i.e., it is known that he has kids but it is not known whether they are ill]

Hëtium-m ivigwaŗ̌lokkai ţei.
PRL-ITV-**SUB** DYN-[inc.stem: ‘recreation.leisure’]-‘ambulate’-NRM-DEL/M/CSL/CPN-TPP$_1$/7-ISR 1+ma-ACT
She and I may take a walk later on. [i.e., it is known that the opportunity to do so will arise, but it is uncertain whether we will choose to]

Uzlawas gvarl âpcâål.
IFL/RSL-STA-‘inside-out’-PRX/M/CSL/UNI-**SUB** ‘article of clothing’-OBL-DEL/M/ASO/AGG FML-‘wife’-POS-DEL/M/CSL/UNI
His wife’s clothes may be inside-out.

5.2.3 ASM The Assumptive

The ASSUMPTIVE mood functions identically to the FACTUAL except that the factuality of an underlying presupposition is unknown. It therefore conveys an act, state, or event whose factuality is dependent on whether something else is factual, thus corresponding to certain usages of English ‘maybe’ and ‘will’ (where ‘will’ primarily conveys possibility, not future tense). As with all moods, the specific translation is subject to the particular Bias and Validation associated with the verb. Examples:

Eglayës âmmiļ qê.
STA-‘illness’-**ASM**-NRM/PRX/M/CSL/UNI-IFL STA-‘child.offspring’-AFF-NRM/DEL/M/CSL/AGG ma-GEN
His kids’ll be ill **OR** *If he has kids, they are ill.* [i.e., it is unknown whether he has kids, but if he does, they are certainly ill.]

Hëtiul-l ivigwařļokkai ţei.
ITV-**ASM** DYN-[inc.stem: ‘recreation.leisure’]-‘ambulate’-NRM-DEL/M/CSL/CPN-TPP$_1$/7-ISR 1+ma-ACT
She and I will take a walk later on [i.e., if we can] **OR** *We intend to take a walk.* [i.e., but we don’t know if we’ll be able to]

Uzlayës gvarl âpcâål.
IFL/RSL-STA-‘inside-out’-PRX/M/CSL/UNI-**ASM** ‘article of clothing’-OBL-DEL/M/ASO/AGG FML-‘wife’-POS-DEL/M/CSL/UNI
If he has a wife her clothes are inside-out.

5.2.4 SPC The Speculative

The SPECULATIVE mood indicates that the factuality of both the presupposition and the statement itself are unknown. Its translation into English is dependent on the specific context, sometimes corresponding to ‘may,’ ‘maybe’ or ‘might,’ and at other times corresponding to the auxiliary ‘would.’ Compare the examples below to those above:

Eglayas âmmiļ qê.
STA-‘illness’-**SPC**-NRM/PRX/M/CSL/UNI-IFL STA-‘child.offspring’-AFF-NRM/DEL/M/CSL/AGG ma-GEN
Maybe his kids are ill [i.e., it is unknown if he has kids but if he does, they may be ill].

Hëtiur-r ivigwařļokkai ţei.
PRL-ITV-**SPC** DYN-[inc.stem: ‘recreation.leisure’]-‘ambulate’-NRM-DEL/M/CSL/CPN-TPP$_1$/7-ISR 1+ma-ACT
She and I may take a walk later on [i.e., it is unknown whether we will have the opportunity to do so, and even if we do, it is uncertain whether we will choose to].

Uzlayas gvarl apcaal.
IFL/RSL-STA-‘inside-out’-PRX/M/CSL/UNI-**SPC** ‘article of clothing’-OBL-DEL/M/ASO/AGG FML-‘wife’-POS-DEL/M/CSL/UNI
If he has a wife her clothes may be inside-out.

5.2.5 COU The Counterfactive

The COUNTERFACTIVE mood indicates that the factuality of the underlying presupposition is false or unreal but that the factuality of the statement would otherwise be true. It thus corresponds to the English construction of auxiliary ‘would’ or ‘would have’ in its use to show counterfactuality (i.e., what would have been if a false presupposition had been true). Again, the specific translation is subject to the particular Bias and Validation associated with the verb. Compare the examples below to those above.

Eglayûs âmmiļ qê.
STA-‘illness’-**COU**-NRM/PRX/M/CSL/UNI-IFL STA-‘child.offspring’-AFF-NRM/DEL/M/CSL/AGG ma-GEN
His kids would be (would have been) ill [i.e., if he had kids they would be ill, but he doesn’t].

Hëtiuň-ň ivigwařļokkai ţei.
ITV-**COU** DYN-[inc.stem: ‘recreation.leisure’]-‘ambulate’-NRM-DEL/M/CSL/CPN-TPP$_1$/7-ISR 1+ma-ACT
She and I would take (would have taken) a walk later on [i.e., it is our intention but we won’t have the opportunity].

Uzlayûs gvarl âpcâål.
IFL/RSL-STA-‘inside-out’-PRX/M/CSL/UNI-**COU** ‘article of clothing’-OBL-DEL/M/ASO/AGG FML-‘wife’-POS-DEL/M/CSL/UNI
If he were to have a wife her clothes would be inside-out.

T^{h}em-mp^{h}amnas osmuil.
ASR/CTX/ALG-PRL-PRS/**COU**-STA-‘awe’-NRM/PRX/M/CSL/UNI-IFL STA-‘valley’-DER-NRM/DEL/M/CSL/UNI-IFL
The valley would've been awe-inspiring to you, too [i.e., if you had seen/visited/been to it]. LISTEN

5.2.6 HYP The Hypothetical

The HYPOTHETICAL mood indicates that the factuality of the underlying presupposition is false or unreal and that the factuality of the statement itself is uncertain. It thus corresponds to the English construction of auxiliary ‘might have’ in its use to show possible counterfactuality (i.e., what might have been if a false presupposition had been true). Again, the specific translation is subject to the particular Bias and Validation associated with the verb. Compare the examples below to those above.

Eglahës âmmiļ qê.
STA-‘illness’-**HYP**-NRM/PRX/M/CSL/UNI-IFL STA-‘child.offspring’-AFF-NRM/DEL/M/CSL/AGG ma-GEN
His kids might’ve been ill [if he had kids, but he doesn’t, so we’ll never know].

Hëtiur-n ivigwařļokkai ţei.
ITV-**HYP** DYN-[inc.stem: ‘recreation.leisure’]-‘ambulate’-NRM-DEL/M/CSL/CPN-TPP$_1$/7-ISR 1+ma-ACT
She and I might’ve taken a walk later on [i.e., but we won’t have the opportunity, so the decision whether to do so is moot].

Uzlahës gvarl âpcââl.
IFL/RSL-STA-‘inside-out’-PRX/M/CSL/UNI-**HYP** ‘article of clothing’-OBL-DEL/M/ASO/AGG FML-‘wife’-POS-DEL/M/CSL/UNI
If he were to have a wife her clothes might be inside-out.

5.2.7 IPL The Implicative

The IMPLICATIVE mood indicates that the factuality of the underlying presupposition determines the factuality of the statement and that the relationship between the two need not necessarily be a direct cause-and-effect, but merely an indirect chain of events from which the speaker infers the statement from the underlying presupposition. In grammatical analysis, this is referred to as an “epistemic conditional.” Examples are shown below.

Eglahas âmmiļ qê.
STA-‘illness’-**IPL**-NRM/PRX/M/CSL/UNI-IFL STA-‘child.offspring’-AFF-NRM/DEL/M/CSL/AGG ma-GEN
His kids are (must be) ill [i.e., as implied by some other fact such as his staying home from work].

Iul-n ivigwařļokkai ţei.
ITV-**IPL** DYN-[inc.stem: ‘recreation.leisure’]-‘ambulate’-NRM-DEL/M/CSL/CPN-TPP$_1$/7-ISR 1+ma-ACT
[If she wears a blue dress,] *we’ll be taking a walk later on.* [the dress implies something has happened that will make the walk a certainty]

Uzlahas gvarl âpcââl.
IFL/RSL-STA-‘inside-out’-PRX/M/CSL/UNI-**IPL** ‘article of clothing’-OBL-DEL/M/ASO/AGG FML-‘wife’-POS-DEL/M/CSL/UNI
His wife’s clothes must be inside-out.

5.2.8 ASC The Ascriptive

The ASCRIPTIVE mood functions identically to the IMPLICATIVE immediately above, except that the factuality of the inference derived from the underlying presupposition is uncertain. Examples:

Eglahîs âmmiļ qê.
STA-‘illness’-**ASC**-NRM/PRX/M/CSL/UNI-IFL STA-‘child.offspring’-AFF-NRM/DEL/M/CSL/AGG ma-GEN
His kids may be ill [i.e., as implied by some other fact such as his staying home from work].

Iur-ň ivigwařļokkai ţei.
ITV-**ASC** DYN-[inc.stem: ‘recreation.leisure’]-‘ambulate’-NRM-DEL/M/CSL/CPN-TPP$_1$/7-ISR 1+ma-ACT
[If she wears a blue dress,] *we might be taking a walk later on.* [the dress implies something has happened that we’ll make the walk a possibility]

Uzlahîs gvarl âpcââl.
IFL/RSL-STA-‘inside-out’-PRX/M/CSL/UNI-**ASC** ‘article of clothing’-OBL-DEL/M/ASO/AGG FML-‘wife’-POS-DEL/M/CSL/UNI
That means his wife’s clothes are inside-out.

5.3 ILLOCUTION

Illocution refers to what in linguistics is usually termed types of speech acts, i.e., the general purpose of a statement such as whether it is an assertion, a command, a declaratory pronouncement, a question, a warning, etc. This is a category which is not generally marked within Western languages in any consistent grammatical sense, the nearest equivalent grammatical category usually being Mood. As was seen above in Section 5.1, Mood functions in a much narrower grammatical range than in Western languages. When the moods of Western language actually relate to types of speech acts, the equivalent function in Ithkuil is shown by the category of Illocution.

There are six illocutions in Ithkuil: ASSERTIVE, INTERROGATIVE, DIRECTIVE, ADMONITIVE, HORTATIVE and DECLARATIVE. They distinguish the type of speech act being performed by the speaker, with a specific focus on the type of commitment being made on the part of either the speaker or the hearer to the truth or purpose of the utterance. Illocution is marked along with the category of Mood (see Section 5.2) by a consonant+vowel **Ci+Vi** infix to the formative, as previously shown in Table 9 above.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	V_L)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/V_L)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	(’Cb))	**[tone]**	**[stress]**
Phase + Sanction (+Illlocution)	Valence	Validation OR Aspect (+ Mood)	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction (+ Illocution)	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	**Illocution** + Mood	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designa-tion + Relation

Illocution can alternately be shown via the **Cv** affix (Slots I or V) as discussed in Section 5.5 below on Phase. Additionally, in Section 6.3.3 we will see that Illocution can be shown by an affix within a verbal adjunct.

The six illocutions are described below.

5.3.1 ASR The Assertive

The ASSERTIVE is used to express propositions which purport to describe or name some act, event, or state in the real world, with the purpose of committing the hearer to the truth of the proposition. Thus, an utterance in the ASSERTIVE illocution is one that can be believed or disbelieved, and is either true or false. Such utterances would include general statements, descriptions, and explanations.

5.3.2 DIR The Directive

The DIRECTIVE illocution is for the purpose of committing the hearer to undertake a course of action represented by the proposition, where the proposition describes a mental wish, desire, or intention on the part of the speaker. Thus, an utterance in the DIRECTIVE is one that is neither true nor false because it is not describing something that purports to exist in the real world; rather, it describes an act or situation which can potentially be made real, i.e., that can be fulfilled or carried out. Such utterances include commands, orders, and requests and would generally be marked in Western languages by either the imperative, optative, or subjunctive moods. The commitment on the part of the hearer is not belief or disbelief, but rather whether to obey, comply with, or grant. The DIRECTIVE is also used for “commissive” types of statements such as promises, vows, pledges, oaths, contracts, or guarantees, where the statement is a wish or command directed at oneself.

5.3.3 IRG The Interrogative

The INTERROGATIVE is used for utterances corresponding to questions in other languages. The commitment on the part of the listener in regard to the INTERROGATIVE is one of compliance or non-compliance in divulging the information sought, and the truth value of the utterance is neutral pending the reply.

5.3.4 ADM The Admonitive

The ADMONITIVE is used for admonitions and warnings, corresponding to English phrases such as '(I) caution you lest…,' '(I) warn you against…,' or 'Be careful not to….' The utterance is neither true nor false because it describes only a potential act or situation which may occur unless avoided. The commitment on the part of the hearer is to assess the degree of likelihood of the potentiality, followed by a choice whether to heed or ignore/defy the utterance.

5.3.5 HOR The Hortative

The HORTATIVE is used for statements that are untrue or unreal, but wished to be true or real, corresponding to English phrases such as 'if only…', or 'were it that….'

5.3.6 DEC The Declarative

The DECLARATIVE is used for utterances whose purpose is to themselves effect a change upon the real world, based upon convention, cultural rules, law, subjective authority, or personal authority or control of a situation. The commitment imposed upon the hearer is one of recognition or non-recognition. Such utterances include declarations, announcements, proclamations, and various "performative" expressions. Certain languages mark this function of a verb using a mood known as hortative. Examples would be: *I dub thee "Clown Master"!, The king will hear all grievances at noon each day, This court is now in session, We hereby declare this treaty null and void!*

5.3.7 Examples of Illocution in Use

Aidhawél.
DYN-'water as nourishment'-**DIR**-NRM/DEL/M/CSL/UNI-FML
Drink some water!

Ükšoàwîl âmmell.
MNF-'clown'-TFM-**DEC**-NRM/DEL/M/CSL/UNI-FML STA-'child'-ABS-DEL/M/CSL/DPX-IFL
The pair of children are hereby turned into clowns!

LISTEN

Ielmawóţ ôļneilüükt.
DYN-'sing a song'- **ADM**-NRM/DEL/N/CSL/UNI-FML STA-'bird'-ACT-NRM/DEL/M/CSL/UNI-DEF$_1$/8-FML
Be aware that this pet bird sings. LISTEN

Aigrawutļáun?
DYN-'prepared.food'-**IRG**-NRM/DEL/M/CSL/DCT-AGC$_2$/2-FML
Will the cook prepare some meals?

Igrawileiţrar oi aiglulôn.
DYN-'eat food'-FAC-**HOR**-NRM/DEL/M/CSL/UNI-NA1$_1$/5-EXT$_2$/6-IFL PCL STA-'illness'-IND-NRM/DEL/M/CSL/UNI-AGC$_2$/7-IFL
If only the physician wouldn't eat his food in one gulp like that. LISTEN

5.4 CASE-FRAMES AND RELATION

Virtually all languages allow for sentences to be hierarchically embedded within other sentences, a process termed **subordination**. In Western languages, the embedded sentence becomes either a subordinate clause or a relative clause, explicitly introduced by conjunctions such as 'that,' 'which,' 'who,' 'where,' 'although,' 'if,' 'while,' 'whereas,' or a preposition followed by a conjunction, such as 'through which,' 'by whom,' etc. In English, such clauses can also occur as an infinitive or gerundial verb construction. Both relative and subordinate clauses are illustrated in the following sentences:

> *The dog **that ate my hat** belongs to them.*
> *I want **him to stop shouting**.*
> *The committee voted **to fire the superintendant**.*
> *We demand **(that) you give us equal pay**.*
> ***Although he's a college graduate**, he acts like a child.*
> *This is the slot **through which the letter is passed**.*
> ***In case you're unaware**, I'll be leaving next month.*
> *The boy **walking toward us** is my nephew.*

The Ithkuil equivalent to relative or subordinate clauses is known as a **case-frame**, or simply, **frame**. Conceptually, the sentence to be embedded is simply treated as a noun participant to the main verb of a sentence and is therefore marked for case like any other noun. For example, take the following two sentences:

> *She and I were working together.*
> *The two nations were at war.*

Suppose we want to use the second sentence to provide a temporal context for the first sentence. In English we could do this by subordinating the second sentence to the first using the conjunction 'while,' as in *She and I were working together while the two nations were at war*. Alternately, we could create a relative clause by inserting a connecting prepositional phrase, as in *She and I were working together during the time (that) the two nations were at war*.

In Ithkuil, temporal context for a sentence may be provided by a noun in any of the temporal cases such as the CONCURSIVE (see Sec. 4.6.3). A word such as 'summer' or 'famine' would be placed in the CONCURSIVE case to create a sentence corresponding to:

> *She and I were working together during the summer.*
> *She and I were working together at the time of the famine.*

Just as the single words 'summer' and 'famine' are placed in the CONCURSIVE case, so an entire sentence such as *The two nations were at war* can be placed in the CONCURSIVE case to provide the temporal context for the main sentence. In other words, Ithkuil treats the entire subordinate sentence as a noun phrase to be declined into any required case. That is the purpose of a frame, to place sentences into noun cases. By doing so, Ithkuil accomplishes the same task for which Western languages use relative and subordinate conjunctions. In theory, any sentence can be placed into any of the 96 cases and inserted into another sentence wherever a simple noun might be placed in the sentence using that same case.

5.4.1 Relation and the Placement of Frames

To construct a case-frame, the second-order sentence (i.e., the sentence to be subordinated) is placed in the main sentence at the point where a noun declined for the required case would appear. The actual case of the second-order sentence is indicated in the verbal formative the same way as for nominal formatives, i.e., via the **Vc** affix in Slot VII. Additionally, the syllabic stress of the formative will change to show **FRAMED Relation**, explained in the next paragraph.

Relation is a binary category in Ithkuil, having two values. The main verbal formative of an Ithkuil sentence is in UNFRAMED Relation, marked by penultimate (second-to-last) syllabic stress or by ultimate (final) stress if the formative has FORMAL Designation (see Section 3.7). Once a verbal formative is subordinated within a case-frame, it takes FRAMED relation, shown by antepenultimate (third-from-last) syllabic stress or by preantepenultimate (fourth-from-last) syllabic stress if the formative has FORMAL Designation.

Table 10: Relation x Designation

STRESS = 2 relations x 2 designations	UNFRAMED Relation		FRAMED Relation	
	IFL Designation	FML Designation	IFL Designation	FML Designation
	penultimate stress	ultimate stress	antepenultimate stress	pre-antepenultimate stress

If the formative does not have enough syllables to allow for penultimate or pre-antepenultimate stress, any morphophonological Slot (see Section 2.1.1) which is unfilled due to having its unmarked default value, can instead be marked by its alternate default value, e.g., the affix **-a-** in Slot IV (see Section 2.2.2), and/or the infix **-wë-** in Slot IX (see Section 5.5), and/or the affix **-a-** in Slot XII (see Section 3.6), in order to create a sufficient number of syllables.

If the case-frame is inserted at the beginning or into the middle of the main sentence, the final word of the case-frame will usually carry a special suffix, **-t'** (see details in Section 7.4.13), which signifies the end of the frame if this will help to avoid confusion as to which words in the sentence belong inside the frame (i.e., with the secondary sentence), and which belong to the main sentence. A case-frame usually has its verb appear as the first element of the case frame.

In general, the perspective of the verb in the secondary sentence operates independently from that of the main verb, however, it is also common for the perspective of the verb in the secondary sentence to be placed in the ABSTRACT, which has the effect of deferring all Perspective information about the verb to the main verb, similarly to the way English subordinate clauses using gerunds and infinitives defer all tense information to the main verb of the sentence.

5.4.2 Reinterpreting the Notion of a Relative Clause

There is no direct equivalent in Ithkuil to the relative clauses of Western languages. Ithkuil treats such clauses the same as subordinate clauses using case-frames as described above. However, the manner in which this is done, while ultimately logical, is somewhat complex and confusing from a Western perspective. Therefore, to analyze how Ithkuil reinterprets Western relative clauses into subordinate case-frames will first require us to review the nature of relative clauses in Western languages such as English.

A relative clause refers to an imbedded sentence which modifies or describes a "head" noun in the main clause. There are two types of relative clauses, restricted (or dependent) and unrestricted (or independent). The two types are illustrated in the following English sentences.

> RESTRICTED CLAUSE
> (1) *Lions **that like chasing their tails** can be seen at any circus.*
> (2) *That book **(that) I just finished reading** was written by a priest.*
>
> UNRESTRICTED CLAUSE
> (3) *Lions**, which like chasing their tails,** can be seen at any circus.*
> (4) *That book**, which I just finished reading,** was written by a priest.*

In the first sentence, the clause 'that like chasing their tails' refers to a specific type of lion found at a circus (i.e, not all lions chase their tails). Similarly, the clause '(that) I just finished reading' in the second sentence is restricted in that it is considered by the speaker as being necessary in order to identify which book is being talked about, i.e., without the clause, the listener would not know which book the speaker was referring to.

Note the difference in meaning, however, when comparing the first two sentences to the third and fourth sentences. In the third sentence, the speaker implies that all lions chase their tails regardless of whether they are in the circus. In the fourth sentence, the identity of the book is already known to the listener, and the speaker is merely providing two additional facts about it: the fact that he just finished reading it and the fact about its author. Notice that in English, an unrestricted relative clause is set off in writing by commas and cannot begin with 'that' (rather 'which' or 'who' must be used); also, such clauses are normally spoken in a lowered intonation with juncture (i.e., brief pauses) immediately before and after the clause.

5.4.2.1 Restricted Clauses. Ithkuil treats the above notions about relative clauses in a different way. We will first analyze how Ithkuil creates equivalents to restricted relative clauses. This can best be approached by analyzing the underlying sentences which give rise to the main and relative clauses. Analyzing Sentence No. 2 above, it can be broken up into two discrete sentences:

> *That book was written by a priest. (= A priest wrote that book.)*
> *I just finished reading that book.*

In Ithkuil, the sentence which will be functioning as the main sentence acts as a "template" in which the secondary sentence is placed. The particular place in the template to be filled is dependent on what semantic role, i.e., case (see Chapter 4) the secondary sentence is to fill. Note that the common point of reference of the two sentences is 'that book.' In the main sentence, 'that book' functions in the semantic role of CONTENT (See Sec. 4.1.2), superficially equivalent to the direct object of the ABSOLUTIVE subject 'priest', therefore, the main sentence becomes the template 'A priest wrote X' where X is in the OBLIQUE case (See Section 4.3.1). Meanwhile, in the secondary sentence, the noun which is the common point of reference (what in Western grammar would be called the "head" of the relative clause) is marked with an affix indicating such. So we now have the two sentences as:

> A priest wrote [ ]. I just finish reading that book-H.

The '-H' in the second sentence above is meant to represent an affix marking the "head" or common reference point between the two

The '-H' in the second sentence above is meant to represent an affix marking the "head" or common reference point between the two

sentences. At this point, Ithkuil inserts the second sentence as a case-frame into the empty "slot" based on the semantic role it will be playing, in this instance the role of CONTENT marked by the OBLIQUE case (see Sec. 4.3.1).

> A priest wrote [OBL]. I just finish reading that book-H.

As described in Sec. 5.4.1 above, the verb of the secondary sentence takes the relevant case marker (OBLIQUE).

> A priest wrote I just finished reading-OBL that book-H.

Reverse translating this sentence back to English, the closest literal translation would be the rather awkward construction: *A priest wrote what I just finished reading, that book*. However, this is how Ithkuil translates the English sentence 'A priest wrote that book that I just finished reading.'

Two observations can be noted from the Ithkuil sentence. First of all, unlike Western languages, the main clause contains no "head." Instead, the "head" is marked from within the imbedded clause. Secondly, there is no difference between this process and the rendering of other types of subordinate clauses using case-frames, as the main sentence was rearranged (or reinterpreted) to provide a slot for the semantic role of the imbedded sentence, the exact same way that subordinate clauses are constructed in Ithkuil. Therefore, as was previously stated, Ithkuil makes no distinction between subordinate and relative clauses.

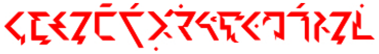
Similarly, the other example sentence from above, *Lions that like chasing their tails can be seen at any circus* would become in Ithkuil: *At any circus one can see certain lions*-H *like to chase*-OBL *their tails*. A literal translation into English would be: *At any circus one can see (that) certain lions like chasing their tails.*

5.4.2.2 Unrestricted Clauses. As for independent or unrestricted clauses, as shown in example sentences (3) and (4) earlier, Ithkuil treats these differently still. In Western languages, an unrestricted clause does not help to identify a noun or provide a context for it, but simply adds additional information about an already identified noun. Thus, unrestricted relative clauses serve a wholly different cognitive-semantic purpose than restricted clauses, a fact hidden by their nearly identical surface structures. Ithkuil acknowledges this profound difference at the overt sentence level by not subordinating any clause at all. Rather, the two sentences are given co-equal status as main clauses and simply joined by a coordinating affix. Thus sentences (3) and (4) from earlier become:

> *One can see lions at any circus and they like chasing their tails.*
> *A priest wrote that book and I just finished reading it.*

5.4.2.3 Use of the CORRELATIVE Case In Lieu of Simple Relative Clauses. The CORRELATIVE case (discussed in Section 4.5.25) is used to create case-frames which are semantically equivalent to the English phrase 'that/which/who is/are…' Such a case-frame would be used in conjunction with specific Functions (see Section 5.1) to convey whether the relationship of the relativized clause to the main clause is one of description, copula identification, etc.

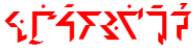
5.4.3 Example of Case-Frames in Use



Âffapka gviluštelk ¯íxhe'ca ekšaéţ odralek^{h}á gvoecuaţ. LISTEN

STA-'cry'-NRM/ICP/U/CSL/UNI-IFL STA-'article.of.clothing'-AFF-NRM/DEL/M/CSL/UNI-ROL$_1$/9-CAP$_1$/3-IFL
FRAMED/DYN-'know'-**PUR**-NRM/DEL/A/CSL/UNI-CPT-IFL 'clown'-OGN-NRM/DEL/N/CSL/UNI-FML STA-'rule'-OBL-NRM/DEL/M/CSL/UNI-TPP$_1$/3-FML
STA-'article.of.clothing'-REF-NRM/DEL/A/CSL/UNI-DEV$_2$/1-IFL

The incompetent tailor began to cry after finding out about the clowns' new directive on nakedness.



N-nsaixtáš qu íkau'šurdûž. LISTEN

CNT-DYN-'job/employment'-NRM/PRX/M/ASO/UNI-FML ma-IND **FRAMED**-FML-DYN-'travel'-**CON**-NRM/PRX/M/ASO/UNI-EXD$_1$/9-CNS$_1$/6

He keeps on working despite his reluctance to having to travel more and more.

5.5 PHASE

Phase refers to variances in the temporal pattern of how an act, condition or event occurs, e.g., in a momentary, lasting, or repetitive manner (or lack thereof). This is especially useful in describing phenomena that occur in sudden bursts of short duration, e.g., flashing, sputtering, blinking, alternating, etc. Phase functions closely with the morphological category of Extension, previously described in Sec. 3.4, to specify the durational nature, starting and ending, and operative pattern of a state, action or event.

The nine phases are the CONTEXTUAL, PUNCTUAL, ITERATIVE, REPETITIVE, INTERMITTENT, RECURRENT, FREQUENTATIVE, FRAGMENTATIVE, and FLUCTUATIVE. They are marked by the **Cv** affix to a formative, depending on the sanction (and potentially the illocution) of the verb (discussed in Sections 5.6 and 5.3 respectively). The **Cv** affix is normally placed in Slot V of the formative's morphological structure, unless the formative contains an incorporated root (see Section 6.4), in which case **Cv** is placed in Slot I. (In Section 6.3.3 we will see that **Cv** can alternately be placed within a verbal adjunct.)

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	**VL)**	**Cg/Cs)**	**Vr**	**(Cx/Cv**	**Vp/VL)**	**Cr**	**Vc**	**Ci +Vi**	**Ca**	**VxC**	**(Vf**	**('Cb))**	**[tone]**	**[stress]**
Phase + Sanction (+ Illocution)	Valence	Validation OR Aspect (+ Mood)	Pattern + Stem + Function	Incorp.Root OR **Phase** + Sanction (+ Illocution)	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designa-tion + Relation

The presence of a **Cv** infix in Slot V requires the presence of a **VL** affix in Slot VI (See Section 5.6 below on Valence). However, if the categories of Phase, Sanction, Illocution, and Valence are all in their default modes (i.e., CONTEXTUAL phase, PROPOSITIONAL Sanction, ASSERTIVE illocution, and MONOACTIVE valence), then they normally remained unmarked, i.e., the **Cv** and **VL** affixes are deleted and Slots V and VI will be unfilled.

NOTE: If Slots V and VI are filled (whether by the **Cv + VL** infixes or by the **Cx + Vp** infixes discussed in Section 6.4), it becomes necessary to be able to distinguish them from the **Cr + Vc** root + case infixes in Slots VII and VIII (so the reader/listener will be able to tell which consonants and vowels belong to which morpho-phonological slot). This is accomplished in either of two ways:

1. The **Vr** vocalic affix in Slot IV must be filled and must be followed by an additional glottal stop **'**. It is this inserted glottal stop that clues the reader/listener that Slots V and VI are filled.
2. Or, if the formative is unmarked for Mood and Illocution (i.e., the formative has FACTUAL mood and ASSERTIVE illocution), then this Mood/Illocution combination becomes marked by the infix **-wë-** in Slot IX. This marking of a usually unmarked combination of Mood and Illocution is what clues the reader/listener that Slots V and VI are filled.

The values for the **Cx** affix are shown in Tables 11(a) through 11(f) below. Note that if the formative's Illocution is already shown by the **Ci+Vi** infix in Slot IX, then illocution is NOT shown via the **Cv** infix. In such a case, the **Cv** infix will display ASSERTIVE illocution only (as a default), i.e., only the values from Table 11(a) below will be utilized for **Cv**.

Tables 11(a)-(f): Cv infixes: 9 Sanction x 9 Phases x 6 Illocutions

NAME OF ILLOCUTION	PHASE LABEL	NAME OF PHASE	SANCTION								
			1 PPS	2 EPI	3 ALG	4 IPU	5 RFU	6 REB	7 THR	8 EXV	9 AXM
ASSERTIVE ASR	**CTX**	Contextual	t	t'	t^h	l	tr	tl	tř	tw	ty
	PCT	Punctual	k	k'	k^h	x	kr	kl	kř	kw	ky
	ITR	Iterative	p	p'	p^h	w	pr	pl	př	pw	py
	REP	Repetitive	q	q'	q^h	ř	qr	ql	xr	qw	xl
	ITM	Intermittent	b	v	vr	vl	br	bl	bř	bw	by
	RCT	Recurrent	d	dh	ż	żż	dr	dl	dř	dw	dy
	FRE	Frequentative	g	xh	j	jj	gr	gl	gř	gw	gy
	FRG	Fragmentative	m	mm	r	rr	mr	ml	mř	mw	my
	FLC	Fluctuative	n	nn	ddh	ll	nr	nl	nř	nw	ny

NAME OF ILLOCUTION	PHASE LABEL	NAME OF PHASE	SANCTION								
			1 PPS	2 EPI	3 ALG	4 IPU	5 RFU	6 REB	7 THR	8 EXV	9 AXM
INTERROGATIVE IRG	**CTX**	Contextual	s	ss	sm	sn	sr	sl	sř	sw	sy
	PCT	Punctual	š	šš	šm	šn	šr	šl	šř	šw	šy
	ITR	Iterative	ç	çç	çm	çn	çl	çr	çř	çw	ly
	REP	Repetitive	c	cc	cm	cn	cr	cl	cř	cw	cy
	ITM	Intermittent	č	čč	čm	čn	čr	čl	čř	čw	čy
	RCT	Recurrent	z	zz	zm	zn	zr	zl	zř	zw	zy
	FRE	Frequentative	ž	žž	žm	žn	žr	žl	žř	žw	žy
	FRG	Fragmentative	f	ff	fw	fy	fr	fl	fř	vw	vy
	FLC	Fluctuative	ţ	ţţ	ţw	ţy	ţr	ţl	ţř	dhw	dhy

NAME OF ILLOCUTION	PHASE LABEL	NAME OF PHASE	SANCTION								
			1 PPS	2 EPI	3 ALG	4 IPU	5 RFU	6 REB	7 THR	8 EXV	9 AXM
DIRECTIVE DIR	**CTX**	Contextual	sk	sk'	sk^h	zg	skr	skl	skř	skw	sky
	PCT	Punctual	st	st'	st^h	zd	str	stl	stř	stw	sty
	ITR	Iterative	sp	sp'	sp^h	zb	spr	spl	spř	spw	spy
	REP	Repetitive	sq	sq'	sq^h	xx	sqr	sql	xw	sqw	řř
	ITM	Intermittent	šk	šk'	$šk^h$	žg	škr	škl	škř	škw	šky
	RCT	Recurrent	št	št'	$št^h$	žd	štr	štl	štř	štw	šty
	FRE	Frequentative	šp	šp'	$šp^h$	žb	špr	špl	špř	špw	špy
	FRG	Fragmentative	šq	šq'	$šq^h$	xxh	šqr	šql	xhw	šqw	řw
	FLC	Fluctuative	ň	ňň	rw	ry	ňr	ňl	ňř	ňw	řy

NAME OF ILLOCUTION	PHASE LABEL	NAME OF PHASE	SANCTION								
			1 PPS	2 EPI	3 ALG	4 IPU	5 RFU	6 REB	7 THR	8 EXV	9 AXM
ADMONITIVE ADM	**CTX**	Contextual	ks	kss	ksm	ksn	ksr	ksl	ksř	ksw	ksy
	PCT	Punctual	kš	kšš	kšm	kšn	kšr	kšl	kšř	kšw	kšy

	ITR	Iterative	ps	pss	psm	psn	psr	psl	psř	psw	psy
	REP	Repetitive	pš	pšš	pšm	pšn	pšr	pšl	pšř	pšw	pšy
	ITM	Intermittent	gz	gzz	gzm	gzn	gzr	gzl	gzř	gzw	gzy
	RCT	Recurrent	gž	gžž	gžm	gžn	gžr	gžl	gžř	gžw	gžy
	FRE	Frequentative	bz	bzz	bzm	bzn	bzr	bzl	bzř	bzw	bzy
	FRG	Fragmentative	bž	bžž	bžm	bžn	bžr	bžl	bžř	bžw	bžy
	FLC	Fluctuative	sx	sxh	šx	šxh	zgr	zgl	zgř	zgw	zgy

NAME OF ILLOCUTION	PHASE LABEL	NAME OF PHASE	SANCTION								
			1 PPS	2 EPI	3 ALG	4 IPU	5 RFU	6 REB	7 THR	8 EXV	9 AXM
HORTATIVE HOR	**CTX**	Contextual	çt	çt’	çt^h	sţ	çtr	çtl	çtř	çtw	çty
	PCT	Punctual	çk	çk’	çk^h	šţ	çkr	çkl	çkř	çkw	çky
	ITR	Iterative	çp	çp’	çp^h	sf	çpr	çpl	çpř	çpw	çpy
	REP	Repetitive	çq	çq’	çq^h	šf	çqr	çql	çqř	çqw	çč
	ITM	Intermittent	kt	kt’	kt^h	gd	ktr	ktl	ktř	ktw	kty
	RCT	Recurrent	pt	pt’	pt^h	bd	ptr	ptl	ptř	ptw	pty
	FRE	Frequentative	qt	qt’	qt^h	tk	qtr	qtl	qtř	qtw	qty
	FRG	Fragmentative	sc	sc’	sc^h	db	żr	żl	żř	żw	ży
	FLC	Fluctuative	šč	šč’	šč^h	dg	jr	jl	jř	jw	jy

[correction made in September 2011 to the following table marked in red]

NAME OF ILLOCUTION	PHASE LABEL	NAME OF PHASE	SANCTION								
			1 PPS	2 EPI	3 ALG	4 IPU	5 RFU	6 REB	7 THR	8 EXV	9 AXM
DECLARATIVE DEC	**CTX**	Contextual	ct	ct’	ct^h	tm	ctr	ctl	ctř	ctw	cty
	PCT	Punctual	ck	ck’	ck^h	km	ckr	ckl	ckř	ckw	cky
	ITR	Iterative	cp	cp’	cp^h	pm	cpr	cpl	cpř	cpw	cpy
	REP	Repetitive	cq	cq’	cq^h	qm	cqr	cql	gm	cqw	xm
	ITM	Intermittent	čt	čt’	čt^h	tn	čtr	čtl	čtř	čtw	čty
	RCT	Recurrent	čk	čk’	čk^h	kn	čkr	čkl	čkř	čkw	čky
	FRE	Frequentative	čp	čp’	čp^h	pn	čpr	čpl	čpř	čpw	čpy
	FRG	Fragmentative	čq	čq’	čq^h	qn	čqr	čql	gn	čqw	xn
	FLC	Fluctuative	xt	xt’	xt^h	pk	xtr	xtl	xtř	xtw	xty

The nine phases are explained in the following sections. The Category of Sanction is explained in Section 5.6.

5.5.1 CTX The Contextual

The CONTEXTUAL is the default phase, describing a single act, condition, or event as a relatively brief (but not instantaneous), single holistic occurrence considered once, where the actual duration of the occurrence is not relevant in the particular context. It can be visually represented along a progressive timeline by a short dash, e.g., —

5.5.2 PUN The Punctual

The PUNCTUAL describes an act, condition, or event which is point-like, momentary or instantaneous in nature, such as an explosion, a flash of lightning, a blow, a single handclap, a collision between two objects, a stab of pain, a single cough, the clicking of a lock, etc. It can be visually represented along a timeline by a single point, e.g., •

5.5.3 ITR The Iterative

The ITERATIVE refers to a momentary or instantaneous event, like the PUNCTUAL above, which repeats itself in a rapid, on/off, staccato manner, like a machine gun burst, strobe light burst, an alarm bell ringing, or the quick unconscious tapping of a finger, the whole comprising a single CONTEXTUAL event.

Visual representation: • • • •

5.5.4 REP The Repetitive

The REPETITIVE refers to a relatively brief event of indeterminate or vague duration (i.e., as with the CONTEXTUAL phase above), but repeated in an on/off staccato manner, like a car horn being honked repeatedly in a fast steady rhythm, or an automatic machine press.
Visual representation: — — ——

5.5.5 ITM The Intermittent

The INTERMITTENT is similar to the ITERATIVE above, identifying a repetitive occurrence of a PUNCTUAL event, however, unlike the ITERATIVE, the duration of time between repetitions is relatively long and contextually relevant. It would be used in describing the downbeat pattern of a pop song, the ongoing snapping of fingers to music, the steady one-drop-at-a-time dripping of a faucet, etc.

Visual representation: — • — • — • — •

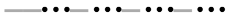
5.5.6 RCT The Recurrent

The RECURRENT is to the REPETITIVE as the INTERMITTENT is to the ITERATIVE. It indicates a slow repetition of a CONTEXTUAL event, where the duration between occurrences is relatively long and contextually relevant. Exemplified by the sounding of a foghorn, or the ongoing hooting of an owl.

Visual representation: —— —— —— —— —— —— ——

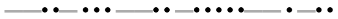
5.5.7 FRE The Frequentative

The FREQUENTATIVE indicates an iterative occurrence (a single set of punctual repetitions) which in turn repeats at intervals, the whole considered as a single CONTEXTUAL event. Examples would be the repetitive sets of hammerings of a woodpecker or the repeated short bursts of a jackhammer.

Visual representation: 

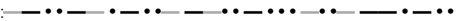
5.5.8 FRG The Fragmentative

The FRAGMENTATIVE indicates a random pattern of punctual occurrences, the whole considered as a single CONTEXTUAL event.

Visual representation: 

5.5.9 FLC The Fluctuative

The FLUCTUATIVE indicates a random pattern of both punctual and longer occurrences. An example would be the "sputtering" of a lighted fuse, the random patterns of tongues of flames, the chirping of birds in the wild, etc.

Visual representation: 

5.5.10 Examples of Phase in Use

Hwe'maklás. (OR Hweklàsürn.)
INF-STA-ASR/**FRG**/PPS-'rain'-NRM/PRX/M/CSL/UNI-FRM
It may be raining.

I'aqantas altaelgôn.
DYN-ASR/**REP**/PPS-MNO-'sound'-NRM/PRX/M/CSL/UNI-IFL STA-'inscribe'-OGN-NRM/PRX/U/ASO/DCT-AGC$_2$/7-IFL
The sound coming from the banks of printers keeps on steadily repeating.

Ilarburn ệļnuļ.
DYN-'voice'-NRM/PRX/U/VAR/AGG-**FLC**-IFL STA-'bird'-IND-NRM/DEL/M/CSL/AGG-IFL
Birds are chirping, tweeting, and calling.

5.6 SANCTION

The morphological category of Sanction indicates the discourse-related purpose of an utterance in relation to what sort of truthfulness the listener should ascribe to it. In everyday terms, this corresponds to whether the utterance is a neutral proposition or assertion, an allegation, a rebuttable presumption, a counter-argument, a refutation of an allegation, a rebuttal, etc.

There are nine sanctions: the PROPOSITIONAL, EPISTEMIC, ALLEGATIVE, IMPUTATIVE, REFUTATIVE, REBUTTATIVE, THEORETICAL, EXPATIATIVE, and AXIOMATIC. Sanction is shown by the **Cv** affix to a formative, depending on the phase (and potentially the illocution) of the verb (discussed in Sections 5.5 and 5.3 respectively). The **Cv** affix is normally placed in Slot V of the formative's morphological structure, unless the formative contains an incorporated root (see Section 6.4), in which case **Cv** is placed in Slot I. (In Section 6.3.3 we will see that **Cv** can also be placed within a vebal adjunct.)

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	**VL)**	**Cg/Cs)**	**Vr**	**(Cx/Cv**	**Vp/VL)**	**Cr**	**Vc**	**Ci +Vi**	**Ca**	**VxC**	**(Vf**	**('Cb))**	**[tone]**	**[stress]**
Phase + **Sanction** (+ Illocution)	Valence	Validation OR Aspect (+ Mood)	Pattern + Stem + Function	Incorp. Root OR Phase + **Sanction** (+ Illocution)	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designation + Relation

As previously noted in the section on Phase, the presence of a **Cv** infix entails several other morpho-phonological structural requirements potentially affecting Slots IV, VI and IX. See Section 5.5 above for details of these requirements.

Each sanction is explained in the sections below.

5.6.1 PPS The Propositional

The PROPOSITIONAL sanction is the default sanction, indicating the utterance represents a neutral proposition or assertion of ontologically objective fact, i.e., a statement of fact irrespective of third-party opinion, belief, or interpretation. Example of such statements would be *That is a mountain*, or *I'm hungry*.

5.6.2 EPI The Epistemic

The EPISTEMIC sanction identifies an utterance as being a statement of shared knowledge or conventionalized fact whose ontology is human convention (i.e., agreed-upon knowledge) as opposed to objective fact irrespective of human knowledge. An example would be *That mountain is Mount Fuji* or *The U.N. tries to relieve hunger in the Third World*.

5.6.3 ALG The Allegative

The ALLEGATIVE sanction identifies an utterance as an ontologically subjective assertion or allegation, i.e., a proposition expressing one's opinion, belief, or interpretation, open to challenge or refutation. Examples would be *That mountain is beautiful* or *No one in the United States goes hungry*.

5.6.4 IPU The Imputative

The IMPUTATIVE sanction identifies an utterance as a rebuttable presumption, i.e., an assertion, whether ontologically objective or by convention, that is to be assumed true unless and until rebutted by a sufficient counter-argument or other evidence. Examples would be *He knows how to drive* [e.g., because he owns a car] or *She can't be hungry now* [e.g., because I saw her come out of the restaurant].

5.6.5 RFU The Refutative

The REFUTATIVE sanction identifies an utterance as a counter-allegation, refutation, or rebuttal of a previous assertion, allegation or presumption, where the counter-allegation, refutation, or rebuttal is epistemic in nature, i.e., based on shared human knowledge as opposed to ontologically objective fact.

5.6.6 REB The Rebuttative

The REBUTTATIVE sanction identifies an utterance as a counter-allegation, refutation, or rebuttal of a previous assertion, allegation or presumption, where the counter-allegation, refutation, or rebuttal is based on ontologically objective fact, irrespective of subjective opinion, belief, or interpretation.

5.6.7 THR The Theoretical

The THEORETICAL sanction identifies an utterance as a testable hypothesis or potentially verifiable theory.

5.6.8 EXV The Expatiative

The EXPATIATIVE sanction identifies an utterance as a hypothesis or theory that is not necessarily provable or verifiable.

5.6.9 AXM The Axiomatic

The AXIOMATIC sanction identifies an utterance as a conclusive presumption, i.e., a statement of ontologically objective, pan-experiential fact not open to rational argument or refutation. Examples would be *Gravity is ubiquitous*, or *Hunger is caused by not consuming enough food*.

5.6.10 Examples of Sanctions In Use

T^{h}em-mp^{h}amnas osmuil.

ASR/CTX/ALG-PRL-PRS/COU-STA-'awe'-NRM/PRX/M/CSL/UNI-IFL STA-'valley'-DER-NRM/DEL/M/CSL/UNI-IFL

The valley would've been awe-inspiring to you, too [i.e., if you had seen/visited/been to it].

Tlan-nsac^{h}as ômmil.

ASR/CTX/REB-MNO-CNT-STA-'sadness'-NRM/PRX/M/CSL/UNI-IFL STA-'female child'-AFF-NRM/DEL/M/CSL/UNI-IFL

On the contrary, the girl is still sad.

Pšei'ùlûrţ lên-nsa hwaixtasár öqeil.

STA-'incident'-PCR-NRM/DEL/M/CSL/UNI-EXT$_2$/6-FML IPU-CPC-CNT INF-DYN-'job/employment task'-NRM/PRX/M/CSL/UNI-NA1$_1$/5-FML STA-'man'-ACT-NRM/DEL/M/CSL/UNI-IFL

After an incident like that, it's a fair guess the man won't be able to work any longer. LISTEN

5.7 VALENCE

In Ithkuil, the term **Valence** is used to refer to the manner of participation of two separate entities or parties to any given verb, i.e., participation by one party automatically implies participation by another party to the same act, event, or state in either a parallel, corollary, or complementary fashion. Such dual participation occurs naturally in the verbs of world languages and is the province of what is known as "co-active" verbs. While all languages implicitly have co-active verbs, Ithkuil explicitly shows this dual participation in a formal and systematic way. To illustrate the concept of co-activity in English compare the following pairs of sentences:

1a) *I found an old man.* → 1b) *I found an empty can.*
2a) *I threw the ball at Sam.* → 2b) *I threw the ball at the window.*
3a) *I performed in front of her.* → 3b) *I performed in front of the wall.*

Note that the first member of each sentence pair has an animate object of the verb (*an old man, Sam,* and *her*), while the second member of each pair has an inanimate object (*an empty can, the window,* and *the wall*). Now compare this set of sentence pairs to the similar set below:

1c) *I met an old man.* → 1d) * *I met an empty can.*
2c) *I threw Sam the ball.* → 2d) * *I threw the window the ball.*
3c) *I entertained her.* → 3d) * *I entertained the wall.*

The asterisk * indicates that the second sentence of these pairs is semantically unacceptable to English speakers. Why?The second set of sentence pairs parallel the first set except that the verbs *find*, *throw at*, and *perform* have been replaced by the semantically similar *meet*, *throw*, and *entertain*. Nevertheless, the use of inanimate objects with these latter three verbs appears unacceptable. The reason is that the verbs in the first set are "mono-active," i.e., they do not require that the object participate in the action in any way, whereas the verbs in the second set are "co-active," requiring that the object participate in the action along with the subject. Thus, while I can *find* an old man without the old man doing anything about it or even being aware of it, I cannot *meet* an old man without the old man also meeting me. I can *throw a ball at Sam* without Sam noticing, but if I *throw Sam a ball* it implies that he is expected to participate by catching it. Similarly, I can *perform* in front of someone even if they're asleep, but I can't *entertain* them unless they are participating in the situation

by observing me. The participatory relationship involving the second party of a co-active verb differs depending on the context. It can be a parallel relationship (i.e., both parties participate identically) as implied by the English adverb 'together' in *He and I jog together*, or a reciprocal relationship as in the sentence *I met the old man* (i.e., and so he met me) or in verbs used with the adverbial phrase 'each other,' as in *We love each other*. The relationship can be one of accompaniment as in *I played along with him* (e.g., as he sang), or a complementary relationship as in *I threw Sam the ball* (i.e., and so he caught it).Other sorts of co-active relationships are possible. It is the differences in these relationships that are systematized in Ithkuil into the category called valence. In English and other languages co-activity is rarely explicit and systematic (the use of adverbs such as 'together,' 'each other,' or prefixes such as 'out-' as in *out-perform* are some exceptions), and when lexified within a verb itself, are implicitly specific to that verb, giving rise to monoactive/co-active pairs such as *find/meet, throw at/throw, perform/entertain*, etc. In Ithkuil, co-activity is explicitly shown morphologically, and the types of co-active relationships, i.e., the valences of the verb, are systematic and fully productive for all verbs. As a result, no mono-active versus co-active lexical distinctions are necessary, i.e., all verbs can function monoactively as well as co-actively.

There are fourteen valences in Ithkuil: the MONOACTIVE, PARALLEL, COROLLARY, RECIPROCAL, COMPLEMENTARY, NONRELATIONAL, DUPLICATIVE, DEMONSTRATIVE, RESISTIVE, IMITATIVE, CONTINGENT, PARTICIPATIVE, INDICATIVE, and MUTUAL. Valence is shown by the **VL** affix to a formative, normally placed in Slot VI of the formative's morphological structure (following the **Cv** affix in Slot V), unless the formative contains an incorporated root (see Section 6.4) or a **Cs** aspect/mood infix in Slot III, in which case **VL** is placed in Slot II following the **Cv** affix in Slot I. As per the Note in Section 5.5, the presence of **Cv** and **VL** in Slots V and VI require that the **Vr** infix in Slot IV be followed by a glottal stop **'**.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/VL)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	('Cb))	**[tone]**	**[stress]**
Phase + Sanction (+ Illocution)	**Valence**	Validation OR Aspect (+ Mood)	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction (+ Illocution)	Pattern + Stem + Designation of Incorp. Root OR **Valence**	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designa-tion + Relation

(In Section 6.3.4 we will see that Valence can also be shown via a cosonantal prefix to a verbal adjunct.)

Table 12 below shows the values for the **VL** affix for each of the fourteen valences.

Table 12: VL Valence Prefixes

	Label	Valence name	VL
1	MNO	Monoactive	**a**
2	PRL	Parallel	**e**
3	CRO	Corollary	**o**
4	RCP	Reciprocal	**i**
5	CPL	Complementary	**u**
6	NNR	Nonrelational	**â**
7	DUP	Duplicative	**ê**
8	DEM	Demonstrative	**ô**
9	RES	Resistive	**û / î**
10	IMT	Imitative	**ai / au**
11	CNG	Contingent	**ei / eu**
12	PTI	Participative	**oi / ou**
13	IDC	Indicative	**ui / iu**
14	MUT	Mutual	**ö**

The fourteen corresponding consonantal prefixes for Valence used with verbal adjuncts are given in Section 6.3.4.

The fourteen valences are explained as follows:

5.7.1 MNO The Monoactive

The MONOACTIVE valence is the default valence and indicates a lack of co-activity, i.e., no participation by a second party is implied.

5.7.2 PRL The Parallel

The PARALLEL valence indicates that a second party is engaging in the same activity as the first party at same time. It would be used in translating sentences such as *The children all sang together, We both went jogging on the parkway*.

5.7.3 CRO The Corollary

The COROLLARY valence is similar to the PARALLEL, except that the second party engages in related activity at the same time as the first party, rather than the same activity. It would be used in translating sentences such as *The children played in the yard* (i.e., each child engaged in a different play activity) or *The band played my favorite song* (implying that not everyone in the band was playing the same instrument, or perhaps that someone in the band sang as opposed to playing an instrument).

5.7.4 RCP The Reciprocal

The RECIPROCAL valence indicates identical activity by each party directed at the other, thus translating the English adverbial phrases ‘each other’ and ‘one another,’ as in *They looked at each other, The clown and the grocer despise one another.*

5.7.5 CPL The Complementary

The COMPLEMENTARY valence indicates that the second party performs a complementary activity to that of the first party. By “complementary” is meant an activity different from that of the first party, but necessary to complete the whole of the joint activity, i.e., the “other half” of the joint activity. This is exemplified in sentences such as *The man and his son played catch, Hortense took me into the woods, The clown read the children a story, My back itches so I scratch it*, where ‘played catch’ implies the complementary activities of throwing and catching, ‘took (into the woods)’ implies someone leading while the other follows, ‘read’ implies a reader and an audience, and ‘itches’ implies scratching.

5.7.6 NNR The Nonrelational

The NONRELATIONAL valence indicates that a second party engages in a completely unrelated activity from the first, i.e., an incidental or circumstantial co-activity. There is no direct way to exemplify this valence in English translation other than to add a periphrastic clause such as ‘while the other did something else’ as in *He shaved while she did something else*. The way an Ithkuil sentence would utilize this valence would be in sentences overtly constructed to say, for example, ‘They were in the house’ with the NONRELATIONAL valence rendering a connotation of ‘…where one party was doing one thing while the other did something else.’

5.7.7 DUP The Duplicative

The DUPLICATIVE valence indicates that the second party copies or repeats the activity of the first party, as in the sentences *Let’s draw a picture* (i.e., I’ll draw it first, then you draw the same picture), *They both read that book* (i.e., first one, then the other), *I bought a new car* (i.e., and now someone else is buying a new car, too).

5.7.8 DEM The Demonstrative

The DEMONSTRATIVE valence indicates that the first party demonstrates for the second party how to do something or what to do. Thus an Ithkuil sentence constructed as *We played chess* with the verb in the DEMONSTRATIVE valence would mean ‘I showed her how to play chess,’ while the sentence constructed as *They fought us* in this valence would mean ‘They taught us how to fight.’

5.7.9 RES The Resistive

The RESISTIVE valence indicates that the second party resists or attempts to avoid participating in the activity of the first party. This sense can sometimes be suggested in English using the adverbs ‘anyway,’ ‘nevertheless,’ or adverbial phrases such as ‘just the same,’ as in sentences such as *We took the children to see the clowns anyway* (i.e., they didn’t want to go), *They fed me liver just the same* (i.e., I can’t stand liver), *Nevertheless, he told us the story* (i.e., despite our not wanting to hear it).

5.7.10 IMT The Imitative

The IMITATIVE valence indicates that the second party mimics, imitates, or attempts to duplicate the activity of the first party. The Ithkuil sentence *The clown juggled three balls for the child* in the IMITATIVE valence implies that the child attempted to juggle the balls as well.

5.7.11 CNG The Contingent

The CONTINGENT valence indicates that the second party engages in the next or dependent phase of a multi-part activity, the specific activity being dependent on context. Thus the Ithkuil sentence *I started the campfire for my friend* in the CONTINGENT implies that the friend then performed the next logical step, i.e., he cooked the food.

5.7.12 PTI The Participative

The PARTICIPATIVE valence indicates that the parties take part in an activity involving a greater whole, translatable by the English phrase ‘take part in.…’ Thus, the Ithkuil sentence *They raced* in the PARTICIPATIVE means ‘They each took part in the race.’

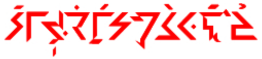
5.7.13 IDC The Indicative

The INDICATIVE valence indicates that the second party perceives a cue, nuance, or implication from the first party’s activity. Thus the sentence *I looked at her* in the INDICATIVE would mean ‘She understood what I meant from my looking at her’ while the sentence *I spoke to them* would mean ‘They gleaned what I really meant from my words.’

5.7.14 MUT The Mutual

The MUTUAL valence indicates that both parties alternate performing an activity, as in *She and I take turns cleaning* or *They both alternate teaching the beginning and advanced classes*.

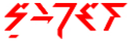
5.7.15 Examples of Valence in Use



Tö ¯um-mixhakc’éçt aiglelôn ükšàleač.

1M-EFF **CPL**-SUB-DYN-‘study’-NRM/GRA/M/CSL/UNI-FML-CVT$_1$/3-CPT STA-‘illness’-ABS-NRM/DEL/M/CSL/UNI-AGC$_2$/7-IFL FRAMED-FML-MNF-‘clown’-OBL-NRM/DEL/M/CSL/UNI-QUA$_2$/8

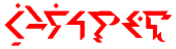
I may secretly teach the doctor to be a truly oustanding clown.



Il-lrazgall eqill.

RCP-HAB-STA-‘smile’-NRM/DEL/M/CSL/DPX-IFL STA-‘person’-AFF-NRM/DEL/M/CSL/DPX-IFL

The couple are always smiling at each other. LISTEN



Uin-ntixal ömmul ekšíl.

IDC-SUB/RTR-DYN-‘see’-NRM/DEL/M/CSL/UNI-IFL STA-‘father’-IND-NRM/DEL/M/CSL/UNI-IFL STA-‘clown’-AFF-NRM/DEL/M/CSL/UNI-FML

Maybe the clown understood the meaning of father’s look.

Eltac wëtöin-n qeiwi.
DYN-'w rite message'-NRM/DEL/A/CSL/UNI-IFL **RCP**-PPS/CTX/ASR-DVR-FAC ma-ACT-CSL-NRM/DPX
The two of them like writing to each other.

Em-mrigradh ekšóll âmmeḷ.
PRL-PRS-DYN-'eat/drink food'-NRM/PRX/N/CSL/UNI-IFL STA-'clow n'-ERG-NRM/DEL/M/CSL/DPX-FML STA-'child'-ABS-NRM/DEL/M/CSL/AGG-IFL
The pair of clowns will make the children eat together from now on.

A'tukças tê oxnall
STA-PPS/CTX/ASR-**CPL**-'itch'-NRM/PRX/M/CSL/UNI-IFL 1m-GEN STA-'back'-OBL-NRM/DEL/M/CSL/DPX-IFL
My back itches so I scratch it. LISTEN

T^{h}em-mp^{h}amnas osmuil.
ASR/CTX/ALG-**PRL**-PRS/COU-STA-'aw e'-NRM/PRX/M/CSL/UNI-IFL STA-'valley'-DER-NRM/DEL/M/CSL/UNI-IFL
You, too, would've found the valley to be awe-inspiring [i.e., if you had seen/visited/been to it]. LISTEN

NOTE: The example sentence immediately above is interesting in that there is no overt reference in the Ithkuil sentence to any subject "you." The idea that there are two parties involved, i.e., the speaker and the listener(s), is conveyed solely by the presence of PARALLEL valence. Without PRL valence, the sentence would simply mean *'the valley would have been awe-inspiring'*; the added PRL valence implies the speaker is alleging to another party (i.e., the listener/reader) that the latter would have also enjoyed the valley's awesomeness.

5.8 VERSION

Version refers to a six-way aspectual distinction indicating whether the verb refers to an act, event or state which is goal- or result-oriented, and/or whether it has been successfully actualized subsequent to one's initial intention. Like many Ithkuil morphological categories, version addresses semantic distinctions which are usually rendered by lexical differentiation (i.e., word choice) in other languages.

Version is shown by the formative's tone (see Section 1.3.2 for an explanation of how tone functions in Ithkuil formatives). The six versions are PROCESSUAL, COMPLETIVE, INEFFECTUAL, INCOMPLETIVE, POSITIVE and EFFECTIVE.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	Vr	(Cx/Cv	Vp/VL)	Cr	Vc	Ci +Vi	Ca	VxC	(Vf	('Cb))	[tone]	[stress]
Phase + Sanction (+ Illocution)	Valence	Validation OR Aspect (+ Mood)	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction (+ Illocution)	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	**Version**	Designation + Relation

The six versions are explained below:

5.8.1 PRC The Processual

The PROCESSUAL version is marked by falling tone. It is the default version and describes all acts, conditions, or events which are ends in themselves and not goal-oriented, i.e., are not focused on an anticipated outcome or final purpose toward which a progressive effort is being made.

5.8.2 CPT The Completive

The COMPLETIVE version is marked by high tone. It describes acts, conditions, or events which achieve, or are intended to achieve, an anticipated outcome, i.e., which are oriented toward the achievement of some purpose, outcome, or final state. Such a distinction is usually handled by word choice in Western languages. The dynamism of Version can be seen in the following comparisons:

PROCESSUAL → COMPLETIVE

hunt → to hunt down
to be losing → to lose
to study → to learn
to be winning → to win
to strive for → to accomplish, achieve
to risk → to defeat the odds; win
to work → to build, construct, make
to displace; infiltrate → infest, to take over; vanquish
to pour out → to drain
to remove (incrementally) → to eliminate
to increase → to maximize
to read → to read to the end; finish reading
to decrease → minimize
to flank → to surround
to enlarge → to make gigantic
to spread upon or over → to cover, engulf, envelop
to shrink → miniaturize
to chase → to catch up to
to eat → eat all up
to pursue → to capture
to compete → to win
to be pregnant → to give birth
to throw at → to hit (with a throw)
to run low on → to run out of, deplete
to grow → to grow up
to use → use up
to possess, hold → to keep
to tear/ rip → to tear/rip up or to pieces
to join together → to unify
to accelerate, speed up → to achieve maximum speed
to pour into → to fill (up)
to bleed → to bleed to death
to run → to run all the way
to descend, go down → to get to the bottom
to brighten → to illuminate
to decelerate, slow down → to stop
to search for, seek → to find
to polish → to burnish
to practice → to perfect
to darken → to make dark
to ascend, rise → to reach the top
to explore → to discover

5.8.3 INE The Ineffectual

The INEFFECTUAL version is marked by rising tone. It, and the INCOMPLETIVE which follows, operate in parallel fashion to the PROCESSUAL and the COMPLETIVE versions respectively but are specific to acts, events, or states initially expressed (whether explicitly or implicitly) as unrealized intentions, attempts, desires, needs, etc., often in conjunction with a modality affix to the verb (see Section 6.1). Such "unrealized" verbs are exemplified in the following sentences: *I want to dance, She needs to work, I tried to finish, She must find him, I choose to celebrate.* Each of these sentences in itself does not specify whether the action was "realized" or not, i.e., just because I want to dance doesn't necessarily mean that I actually do dance; her need to work doesn't tell us by itself whether she in fact will work, etc.

The INEFFECTUAL version indicates that the outcome of an "unrealized" PROCESSUAL verb is unsuccessful. Thus the sentence *I want to dance* in the INEFFECTUAL would be translated as *I want to dance but I'm not going to*, while the sentence *I tried to eat* in the INEFFECTUAL means *I tried to eat but couldn't.*

5.8.4 INC The Incompletive

The INCOMPLETIVE version is marked by low tone. It indicates that the outcome of an “unrealized” COMPLETIVE verb is unsuccessful. It functions identically to the INEFFECTUAL, except that it refers to a verb that is result/goal-oriented, as illustrated in the comparative chart shown above for the COMPLETIVE version. Thus, the sentence *I tried to eat* in the INCOMPLETIVE means *I tried to eat all of it but couldn’t.*

5.8.5 PST The Positive

The POSITIVE version is marked by rising-falling tone. Complementing the INEFFECTUAL, the POSITIVE indicates an intention brought to reality. Thus the sentence *I want to dance* in the POSITIVE would be translated as *I want to dance and so I’m going to*, while the sentence *I tried to eat* in the POSITIVE means *I succeeded in eating something*.

5.8.6 EFC The Effective

Likewise, the EFFECTIVE version complements the INCOMPLETIVE, indicating the same successful effort implied by the POSITIVE version, only applied to goal-/result-oriented verbs. Thus *I wanted to finish* in the EFFECTIVE implies that the desire was successfully carried out; *I tried to eat* in the EFFECTIVE means *I succeeded in eating it all up*. The EFFECTIVE is marked by falling-rising tone.

5.8.7 Examples of Version in Use

ˇIxhát’ êpal Iţkuil efneil tê.

DYN-‘study’-NRM/TRM/M/CSL/UNI-FML-**EFC** STA-[carrier stem]-OBL-NRM/DEL/M/CSL/UNI “Ithkuil” STA-‘male cousin’-ACT-DEL/M/CSL/UNI-IFL 1M-GEN

My cousin has finally learned Ithkuil. LISTEN

→

Uakal egruláun. → **¯Uakal egruláun.**

[**PRC**]-DYN-‘come’-NRM/DEL/M/CSL/UNI-IFL STA-‘prepare food’-IND-NRM/DEL/M/CSL/UNI-AGC$_2$/2-FML

→ **CPT**-DYN-‘come’-NRM/DEL/M/CSL/UNI-IFL STA-‘prepare food’-IND-NRM/DEL/M/CSL/UNI-AGC$_2$/2-FML

The cook is on his way. → *The cook has arrived.* LISTEN

5.9 VALIDATION

Validation expresses the degree or type of evidence supporting a statement, a grammatical requirement of Ithkuil. Such categories are usually termed “evidentials” or “factives” in various non-Western languages which have them. There are 14 validations in Ithkuil, five refer to non-hearsay types of evidence, while nine refer to hearsay situations. These nine hearsay categories are distinguished by a two-fold matrix of whether the source of the hearsay is considered by the speaker to be trustworthy and whether the statement/information is potentially verifiable. The exactitude of Ithkuil evidential categories is impossible to capture in English translation except through cumbersome paraphrase, but can be approximated in a rough way using phrases such as *reportedly, presumably, supposedly, purportedly, allegedly, rumour has it, I have a feeling that,* etc.

The 14 validations are shown by a consonantal prefix **Cg** in Slot III.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/VL)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	(’Cb))	**[tone]**	**[stress]**
Phase + Sanction (+ Illocution)	Valence	**Validation** OR Aspect (+ Mood)	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction (+ Illocution)	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designation + Relation

The values for the **Cg** prefix are shown in Table 13 below as well as the meaning (description of evidential basis) of each validation.

Table 13(a) and (b): Cg Validation Prefixes

	Label	Name	Cg	Evidential Basis
1	**CNF**	CONFIRMATIVE	(h-)*	direct observation/knowledge and verifiable by others
2	**AFM**	AFFIRMATIVE	y-	direct observation/knowledge but unknown verifiability by others
3	**RPT**	REPORTIVE	w-	direct observation/knowledge but unverifiable by others
4	**INF**	INFERENTIAL	hw-	inference
5	**ITU**	INTUITIVE	hh-	intuition/feeling

* The CONFIRMATIVE Validation is unmarked unless the formative displays a **VL** value in Slot II, in which case **Cg** is **h-**.

Hearsay Categories

	Label	Name	Cv	Source Trustworthy?	Verifiable?
6	**PSM**	PRESUMPTIVE	hm-	Yes	Yes
7	**PSM2**	PRESUMPTIVE 2	hn-	Yes	Unknown
8	**PPT**	PURPORTIVE	hr-	Yes	No
9	**PPT2**	PURPORTIVE 2	lw-	Unknown	Yes
10	**CJT**	CONJECTURAL	ly-	Unknown	Unknown
11	**DUB**	DUBITATIVE	rw-	Unknown	No
12	**TEN**	TENTATIVE	ry-	No	Yes
13	**PUT**	PUTATIVE	řw-	No	Unknown
14	**IPB**	IMPROBABLE	řy-	No	No

5.9.1 Examples of Validation in Use

Qö ¯uhmixhákc’ aiglelôn ükšàwëla.

ma-EFF CPT-CPL-**PSM**-DYN-‘study’-GRA/M/CSL/UNI-FML STA-‘illness’-ABS-NRM/DEL/M/CSL/UNI-AGC$_2$/7-IFL FRAMED-MNF-‘clown’-OBL-NRM/DEL/M/CSL/UNI-FML

Presumably he is teaching the doctor to be a clown.

Ihrazgallamz eqill.

RCP-**PPT**-STA-‘smile’-NRM/DEL/M/CSL/DPX-MOT$_2$/5-IFL STA-‘person’-AFF-NRM/DEL/M/CSL/DPX-IFL

Purportedly, the couple can’t help smiling at each other.

Irweltac qeiwi.
RCP-DUB-DYN-‘write message’-NRM/DEL/A/CSL/UNI-IFL ma-ACT-CSL-NRM/DPX
Supposedly the two of them write to each other but who knows if it’s true or not.

5.10 ASPECT

Aspect provides detailed and specific temporal information about the verb, not in relation to the speaker’s present moment of utterance (as with Perspective in Sec. 3.3), but rather in relation to the contextual “present” of the act, condition, or event being spoken about. There are 32 aspects in Ithkuil. For the most part, they translate various common adverbial phrases used in English.

Generally, Aspect is usually shown by affixes to a verbal adjunct, since such adjuncts allow for a second aspect to be conveyed, and any other morphological information carried by the adjunct requires the adjunct to carry an aspectual marker as well. However, it is also possible to show a single aspect within the formative itself, by means of the **Cs** consonantal prefix in Slot III. Such an alernative would be available when Slots I and II of the formative are filled, thus requiring the presence of either **Cg** or **Cs** in Slot III.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	**V_L)**	**Cg/Cs)**	**Vr**	**(Cx/Cv**	**Vp/V_L)**	**Cr**	**Vc**	**Ci +Vi**	**Ca**	**VxC**	**(Vf**	**(’Cb))**	**[tone]**	**[stress]**
Phase + Sanction (+ Illocution)	Valence	Validation OR Aspect (+ Mood)	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction (+ Illocution)	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	Bias	Version	Designa-tion + Relation

The **Cs** consonantal affix will always contain one of the specialized dyssyllabic geminate clusters described in Section 1.2.1.3, written **n-n**, **m-m**, **l-l**, **r-r**, etc. or various other syllabic consonant clusters, e.g., **l-m**, **l-n**, **r-m**, **r-n**, and **r-ň**. The only appearance in Ithkuil of these specialized consonantal clusters is in the **Cs** affix used in Slot III of formatives (as well as in Slot D of verbal adjuncts, discussed in Section 6.0). In this way, the reader/listener can always distinguish whether the consonantal form in Slot III represents **Cs** showing Aspect as opposed to **Cg** showing Validation (see Section 5.9 above).

Besides showing Aspect, **Cs** also shows Mood. If the formative’s Mood is already shown via the **Ci+Vi** infix in Slot IX (see Section 5.2), then **Cs** will show a FACTUAL mood solely as a placeholder/default value, and only the Aspect value of **Cs** will be semantically active.

The values for **Cs** are shown in Table 14 below. (The forms of alternate vocalic affixes used for showing Aspect within verbal adjuncts will be discussed in Section 6.3.1.)

Table 14: Values for Cs (32 Aspects x 8 Moods)

(values in red corrected in October 2011)

			MOOD							
Aspect			**FAC**	**SUB**	**ASM**	**SPC**	**COU**	**HYP**	**IPL**	**ASC**
	none		n-n	m-m	l-l	r-r	ň-ň	r-n	l-ň	r-ň
1	**RTR**	RETROSPECTIVE	n-nr	n-nt	n-nt’	n-nd	n-nt^{h}	n-nţ	n-ndh	n-nh
2	**PRS**	PROSPECTIVE	m-mr	m-mp	m-mp’	m-mb	m-mp^{h}	m-mf	m-mv	m-mh
3	**HAB**	HABITUAL	l-lr	l-lt	l-lt’	l-ld	l-lt^{h}	l-lţ	l-ldh	l-lh
4	**PRG**	PROGRESSIVE	r-rn	r-rt	r-rt’	r-rd	r-rt^{h}	r-rţ	r-rdh	r-rh
5	**IMM**	IMMINENT	ň-ňr	ň-ňk	ň-ňk’	ň-ňg	ň-ňk^{h}	ň-ňx	ň-ňq	ň-ňh
6	**PCS**	PRECESSIVE	n-nw	n-ntw	n-nt’w	n-ndw	n-nt^{h}w	n-nţw	n-ndhw	n-nhw
7	**REG**	REGULATIVE	m-mw	m-mpw	m-mp’w	m-mbw	m-mp^{h}w	m-mfw	m-mvw	m-mhw
8	**EXP**	EXPERIENTIAL	l-lw	l-ltw	l-lt’w	l-ldw	l-lt^{h}w	l-lţw	l-ldhw	l-lhw
9	**RSM**	RESUMPTIVE	r-rw	r-rtw	r-rt’w	r-rdw	r-rt^{h}w	r-rţw	r-rdhw	r-rhw
10	**CSS**	CESSATIVE	ň-ňw	ň-ňkw	ň-ňk’w	ň-ňgw	ň-ňk^{h}w	ň-ňxw	ň-ňqw	ň-ňhw
11	**RCS**	RECESSATIVE	n-ny	n-nty	n-nt’y	n-ndy	n-nt^{h}y	n-nţy	n-ndhy	n-nç
12	**PAU**	PAUSAL	m-my	m-mpy	m-mp’y	m-mby	m-mp^{h}y	m-mfy	m-mvy	m-mç
13	**RGR**	REGRESSIVE	l-ly	l-lty	l-lt’y	l-ldy	l-lt^{h}y	l-lţy	l-ldhy	l-lç
14	**PCL**	PRECLUSIVE	r-ry	r-rty	r-rt’y	r-rdy	r-rt^{h}y	r-rţy	r-rdhy	r-rç
15	**CNT**	CONTINUATIVE	n-ns	n-nz	n-nsw	n-nzw	n-nc’	n-nc^{h}	n-nc’w	n-nc^{h}w
16	**ICS**	INCESSATIVE	m-ms	m-mz	m-msw	m-mzw	m-mc’	m-mc^{h}	m-mc’w	m-mc^{h}w
17	**PMP**	PREEMPTIVE	ň-ňs	ň-ňz	ň-ňsw	ň-ňzw	ň-ňc’	ň-ňc^{h}	ň-ňc’w	ň-ňc^{h}w
18	**CLM**	CLIMACTIC	l-ls	l-lz	l-lsw	l-lzw	l-lc’	l-lc^{h}	l-lc’w	l-lc^{h}w
19	**PTC**	PROTRACTIVE	r-rs	r-rz	r-rsw	r-rzw	r-rc’	r-rc^{h}	r-rc’w	r-rc^{h}w
20	**TMP**	TEMPORARY	n-nš	n-nž	n-nšw	n-nžw	n-nč’	n-nč^{h}	n-nč’w	n-nč^{h}w
21	**MTV**	MOTIVE	m-mš	m-mž	m-mšw	m-mžw	m-mč’	m-mč^{h}	m-mč’w	m-mč^{h}w
22	**CSQ**	CONSEQUENTIAL	ň-ňš	ň-ňž	ň-ňšw	ň-ňžw	ň-ňč’	ň-ňč^{h}	ň-ňč’w	ň-ňč^{h}w
23	**SQN**	SEQUENTIAL	l-lš	l-lž	l-lšw	l-lžw	l-lč’	l-lč^{h}	l-lč’w	l-lč^{h}w
24	**EPD**	EXPEDITIVE	r-rš	r-rž	r-ršw	r-ržw	r-rč’	r-rč^{h}	r-rč’w	r-rč^{h}w
25	**DCL**	DISCLUSIVE	n-nļ	m-mļ	ň-ňļ	n-ntļ	m-mtļ	ň-ňtļ	l-ltļ	r-rtļ
26	**CCL**	CONCLUSIVE	l-lm	l-lļ	n-nl	ň-ňm	m-mř	m-mt	ň-ňt	ň-ňn
27	**CUL**	CULMINATIVE	r-rm	r-rl	m-ml	m-mn	r-mř	m-mt’	ň-ňt’	ň-ňç
28	**IMD**	INTERMEDIATIVE	l-ln	l-nļ	l-lř	n-nm	ň-ňř	m-mt^{h}	ň-ňt^{h}	ň-ňţ
29	**TRD**	TARDATIVE	l-nw	l-ny	l-lg	l-lgw	l-lx	l-lxw	l-lv	l-lcw
30	**TNS**	TRANSITIONAL	r-nw	r-my	r-rg	r-rgw	r-rx	r-rxw	r-rv	r-rcw
31	**ITC**	INTERCOMMUTATIVE	l-mw	l-my	l-lb	l-lbw	l-lf	l-lfw	l-ňw	l-lčw
32	**CSM**	CONSUMPTIVE	r-mw	r-ny	r-rb	r-rbw	r-rf	r-rfw	r-ňw	r-rčw

The thirty-two aspectual categories are explained below.

5.10.1 RTR RETROSPECTIVE

This aspect operates in conjunction with Perspective (see Sec. 3.3) to create various equivalents to Western tense categories. With the MONADIC, the RETROSPECTIVE can be translated by English ‘have already’ as in *I've already done it*. With the UNBOUNDED, the RETROSPECTIVE is equates with the English simple past tense. With the NOMIC and ABSTRACT, it adds a sense of ‘and it's always been that way’ to the verb.

5.10.2 PRS PROSPECTIVE

Like the RETROSPECTIVE above, this aspect operates in conjunction with Perspective to create various equivalents to Western tense categories. With the MONADIC, the PROSPECTIVE equates with the English future tense. With the UNBOUNDED, it can be translated by the English future perfect (i.e., ‘will have…’). With the NOMIC and ABSTRACT, it adds a sense of ‘and it'll always be that way’ or ‘from now on’ to the verb.

5.10.3 HAB HABITUAL

When used with the MONADIC perspective, this aspect conveys the idea of ‘always’ or ‘continues to’, while with the UNBOUNDED, the English ‘used to’ construction offers an equivalent translation, as in *She used to come see me on Wednesdays*.

5.10.4 PRG PROGRESSIVE

This aspect conveys the idea of an act in progress, similar to the English construction ‘in the midst of [verb] + ing’ or the use of the present participle in Spanish.

5.10.5 IMM IMMINENT

Conveys that an action, state or event is imminent. Translates phrases such as ‘(just) about to’ or ‘on the verge of’ as in *I think Carl is about to cry*.

5.10.6 PCS PRECESSIVE

Conveys that an action, state or event has immediately preceded. Translates such phrases as ‘just’ or ‘just now,’ as in *We just saw a clown in the toy store*.

5.10.7 REG REGULATIVE

Conveys the idea of participation or involvement in an action, state, or event over an amount of time extending from the past into the future relative to the contextual present. Translates English phrases such as ‘engaged in’ or ‘involved in’ as in *Her husband is engaged in construction of the new bridge*.

5.10.8 EPR EXPERIENTIAL

Translates English ‘ever’ in the sense of ‘within the realm of one's experience’ or ‘at some point in one's experience,’ as in *Does he ever shut up?* Note the EXPERIENTIAL does not equate to ‘ever’ when it means ‘always,’ as in *Ever does he seek his destiny* nor as an adverb of mere emphasis as in *Was she ever tired*.

5.10.9 RSM RESUMPTIVE

Conveys the idea of an act, state, or event resuming after having previously ceased, as in *The girl resumed singing*, or *He is starting to laugh again.*

5.10.10 CSS CESSATIVE

Conveys the idea of cessation of an event, state or action. Translates English phrases such as ‘stop,’ ‘discontinue,’ or ‘cease,’ as in T*hey stopped dancing at midnight.*

5.10.11 RCS RECESSATIVE

Conveys the idea of cessation of event again, after having previously ceased then resumed, as in *Lyudmila stopped eating yet again in order to enjoy a quick interlude with the neighborhood clown*.

5.10.12 PAU PAUSAL

Indicates a pause in an action, state or event, with an implied intention to resume. Translates phrases such as ‘take a break from’ or ‘pause in’ as in *Mother took a break from cleaning to gossip with her friends*.

5.10.13 RGR REGRESSIVE

Conveys the idea of a return to an original or previous action, state or event after a long hiatus involving an intervening change of state or situation, as translated by the phrase ‘return to.’ The REGRESSIVE should be distinguished from the RESUMPTIVE above, which merely implies the restarting after a stop or pause without an intervening change of state or situation. An example would be *Mr. Yates returned to golf after recovering from his stroke*.

5.10.14 PCL PRECLUSIVE

Conveys the fact that an action, state, or event takes place from inception to conclusion all in one contextual segment, translating such phrases as ‘all at once,’ ‘all in one go,’ ‘without stopping,’ etc. as in *Walter drank the entire bottle in one gulp*.

5.10.15 CNT CONTINUATIVE

Conveys the idea that an action, event, or state continues on. Translates phrases such as ‘keep on,’ ‘still,’ ‘stay,’ ‘yet,’ etc. When used in a negative sentence, conveys the idea of English ‘no longer’ or ‘not anymore’ as in *She kept on singing, You're still staring at me, I've yet to meet him, Sam no longer loves you / Sam doesn't love you anymore*.

5.10.16 ICS INCESSATIVE

Conveys that an action, state or event continues on without stopping. Translates such English adverbials as ‘…on and on’ or ‘…away’ as in *They danced the night away* or *They've been battling on and on since last year*.

5.10.17 PMP PREEMPTIVE

Emphasizes the singularity and initial occurrence an action, state or event, as translated by such English phrases as ‘for once’ or ‘just once,’ as well as the anticipation preceding a long-expected situation, as translated by phrases such as ‘at last,’ ‘after all this time,’ ‘finally,’ and ‘for the first time.’

5.10.18 CLM CLIMACTIC

Emphasizes the finality of an action, state or event, as translated by such English phrases as ‘once and for all’ or ‘for the last time.’

5.10.19 PTC PROTRACTIVE

Conveys that an action, state or event takes place over a long period of time. If used with the CONTEXTUAL or PUNCTUAL phases, or with formatives describing naturally brief durations, the PROTRACTIVE conveys the idea of the act or event being long-delayed. Example usages: *It rained for quite a while, We shared a long kiss, That slap to his face was a long time coming.*

5.10.20 TMP TEMPORARY

Conveys that an action, state or event is being considered or is applicable only to the present subjective context or range of the contextual present, as translated by phrases such as ‘for the time being’ or ‘but only for the moment’ or ‘for now’ as in *This will be sufficient for now* or *For the time being you’ll have to drink water.*

5.10.21 MTV MOTIVE

Conveys that an action, state or event involves physical removal or absence of the participant from the present context of discourse. Translates such phrases as ‘be off …-ing’ or ‘go off to …’ as in *Dad’s off hunting* or *They went off to cavort with the clowns.*

5.10.22 CSQ CONSEQUENTIAL

This aspect conveys the idea of proceeding or engaging in an action or event despite the possibility of adverse consequences. It translates the English phrases such as ‘go ahead and’ or ‘anyway,’ as in *She went ahead and bought the furniture* or *I decided to go there anyway.*

5.10.23 SQN SEQUENTIAL

This aspect conveys the idea a “sequential progressive” in which a series of contextually identical instances is seen as comprising a single event, usually with an implied culmination point. It translates the English use of ‘off’ as in *He's checking off each item as it is inventoried*, or *The sheep died off from the disease.*

5.10.24 EPD EXPEDITIVE

Conveys a sense of haste associated with an action or event. Translates English ‘hurry (up)’ as in *Hurry up and finish* or *They ate in a hurry.*

5.10.25 DCL DISCLUSIVE

Focuses on the revelatory nature of an action, state or event, translating phrases such as ‘turn out to be,’ ‘turn out that…’ and ‘be revealed that….’

5.10.26 CCL CONCLUSIVE

Conveys the direct outcome of an action, state or event within the short-term context of the situation at hand. Translates phrases such as ‘end up…, come to, reach the point where,’ as in *I ended up crashing the car* or *He drank to the point where he passed out.*

5.10.27 CUL CULMINATIVE

Similar to the CONCLUSIVE above, but with a focus on the eventual, long-term outcome over an extended period of time or through a series of developmental steps. Compare the following examples with the CONCLUSIVE aspect above: *In the end, I’ll have to leave town; Things got to the point where the mayor got involved; Eventually, they fell in love.*

5.10.28 IMD INTERMEDIATIVE

Conveys the idea that the action, state, or event takes place at some point along the timeline of, or within the duration of, another action, state, event, or background context, as translated by the phrases ‘at some point’ or ‘somewhere along the way….’

5.10.29 TRD TARDATIVE

Conveys the idea that an action, state, or event lessens, dwindles, or slackens in energy, intensity, or effect, impliedly by exhaustion of the active source of energy or agency, or by dissipation of the foundational context involved. Translates such phrases as ‘to get tired of,’ ‘peter out,’ ‘trail off,’ etc.

5.10.30 TNS TRANSITIONAL

Focuses on the initial stage of preparation, adjustment, or accustomization to an action, state or event, translated by phrases such as ‘take up,’ ‘start to,’ etc. implying a long-term process of initialization, as in *I’m planning to take up golf.*

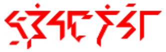
5.10.31 ITC INTERCOMMUTATIVE

Conveys the idea of “sequential reciprocity,” meaning that the action or event is a consequent reciprocation triggered by, or in reaction to, an initiating action or event. It translates the English verbal particle ‘back’ as in *The boy threw it back* or *She stared back at the men ogling her.*

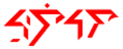
5.10.32 CSM CONSUMPTIVE

Conveys an all-consuming action, state, or event which interferes with or prevents other events from occurring. It translates English phrases such as ‘spend one’s time’ or ‘away’ as in *Mother spends her life worrying* or *He’s pining away.*

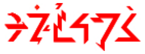
5.10.33 Examples of Aspect In Use



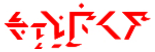
Al-lsinyat eqţulisqa tê.
MNO-**CLM**-DYN-‘choose’-NRM/DEL/U/CSL/UNI-IFL STA-‘brother’-IND-NRM/DEL/M/CSL/UNI-DCS$_2$/1-IFL 1M-GEN
My indecisive brother made a choice once and for all.



Al-lyuolmáļ êqul.
MNO-**RGR**-DYN-‘sing a song’-NRM/DEL/U/CSL/UNI-FML STA-‘w oman’-IND-NRM/DEL/M/CSL/UNI-IFL
The woman returned to singing.



Çtar-ryo igraleiţrar aiglulôn.
HOR/CTX/PPS-**PCL**-**HAB** DYN-‘eat food’-NRM/DEL/M/CSL/UNI-NA1$_1$/5-EXT$_2$/6-IFL STA-‘illness’-IND-NRM/DEL/M/CSL/UNI-AGC$_2$/7-IFL
If only the physician wouldn’t always eat his food in one gulp like that.



Lêr-rwia hwaixtasár öqeil.
ASR/CTX/IPU-CPC-**RSM**-**TMP** INF-DYN-‘job/employment task’-PRX/M/ASO/UNI-NA1$_1$/5-FML STA-‘man’-ACT-DEL/M/CSL/UNI-IFL
I’d venture to say the man won't be able to resume working anytime soon.

5.11 BIAS

Bias expresses the general, overall subjective/emotional attitude or perspective in which the speaker regards the action. There are 24 basic bias categories, each of which has an additional "intensive" form which often warrants a change in English translation.

5.11.1 Bias Categories and Usage

Bias is shown as a word-final consonantal suffix to formative with a glottal stop being infixed between the suffix and the Vf mood/context suffix, e.g., **uprexalo'ss**. (The glottal stop is necessary so that the reader/listener does not confuse it with a word-final VxC suffix in Slot XI.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	**VL)**	**Cg/Cs)**	**Vr**	**(Cx/Cv**	**Vp/VL)**	**Cr**	**Vc**	**Ci +Vi**	**Ca**	**VxC**	**(Vf**	**('Cb))**	**[tone]**	**[stress]**
Phase + Sanction (+ Illocution)	Valence	Validation OR Aspect (+ Mood)	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction (+ Illocution)	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + Format	**Bias**	Version	Designa-tion + Relation

NOTE: We will see in Section 6.3.2 that, as an alternative to the **Cb** bias suffix on a formative, Bias can instead be shown via a word-final consonantal suffix to to a verbal adjunct.

These **Cb** affix forms are shown in Table 15 below. The forms to the right of the arrow are the "intensive" forms described above. The 24 biases are explained following the table.

Table 15: Morpho-Phonological Markers for Bias

	LABEL	NAME OF BIAS	C_b AFFIX → C_b INTENSIVE AFFIX
1	**ASU**	ASSURATIVE	n → nn
2	**HPB**	HYPERBOLIC	m → mm
3	**COI**	COINCIDENTAL	ň → ňň
4	**ACP**	ACCEPTIVE	ţ → ţţ
5	**RAC**	REACTIVE	ç → çç
6	**STU**	STUPEFACTIVE	s → ss
7	**CTV**	CONTEMPLATIVE	z → zz
8	**DPV**	DESPERATIVE	š → šš
9	**RVL**	REVELATIVE	l → ll
10	**GRT**	GRATIFICATIVE	r → rr
11	**SOL**	SOLICITIVE	ř → řř
12	**SEL**	SELECTIVE	ļ → ļļ
13	**IRO**	IRONIC	kç → kçç
14	**EXA**	EXASPERATIVE	pļ → pļļ
15	**LTL**	LITERAL	pç → pçç
16	**CRR**	CORRECTIVE	x → xx
17	**EUP**	EUPHEMISTIC	xh → xxh
18	**SKP**	SKEPTICAL	ks → kss
19	**CYN**	CYNICAL	f → ff
20	**CTP**	CONTEMPTIVE	kš → kšš
21	**DSM**	DISMISSIVE	kf → kff
22	**IDG**	INDIGNATIVE	pš → pšš
23	**SGS**	SUGGESTIVE	ps → pss
24	**PPV**	PROPOSITIVE	pf → pff

5.11.1.1 ASU ASSURATIVE

This bias indicates certainty or self-assurance on the part of the speaker, translatable by such phrases as 'of course,' 'after all,' or 'needless to say.' The intensive form adds a sort of self-righteousness quality conveyed by *I told you so!* or *You see?!*

5.11.1.2 HPB HYPERBOLIC

This bias imparts a sense of hyperbole and exaggeration, captured in such colloquial expressions as a prolonged 'so' or 'totally' as in *I so don't care!* or *That is totally not what I wanted.* The intensive form adds a sense of "one-upmanship" as conveyed by the expression *That's nothing, wait till you hear this!*

5.11.1.3 COI COINCIDENTAL

This bias conveys a sense of coincidence or happenstance as conveyed by the use of 'happen' in *I happened to run into Jane* or *It just so happens that I'm busy.* The intensive form adds a sense of serendipity, as conveyed by expressions such as 'as luck would have it,' 'luckily' or 'fortunately.'

5.11.1.4 ACP ACCEPTIVE

This bias indicates a sense of general acceptance, as conveyed by the expression 'it's just as well that.' The intensive form conveys resignation to fate, as expressed by phrases such as 'like it or not' or '…and there's nothing to be done about it!'

5.11.1.5 RAC REACTIVE

This bias indicates surprise, as conveyed by phrases such as 'my goodness!' or 'it's surprising that.' The intensive form raises this sense to the level of astonishment, as expressed by 'Wow!' or 'Amazing!'

5.11.1.6 STU STUPEFACTIVE

This bias indicates a mild sense of wonder or reflection, as conveyed by the phrase 'it's a wonder that' as in *It's a wonder he didn't break a bone in that fall.* The intensive raises this sense to one of awe, as conveyed by expressions such as 'Well I'll be!' or 'Who would've thought….'

5.11.1.7 CTV CONTEMPLATIVE

This bias expresses puzzlement, as conveyed by phrases such as 'I wonder how…,' 'that's odd…,' 'I don't get it…,' or a quizzical 'hmmmm.' The intensive form raises this sense to sudden bewilderment, as in 'Huh? What do you mean…?'

5.11.1.8 DPV DESPERATIVE

This bias conveys a sense of dread or the conveyance of bad news, as expressed by 'I don't know how to say this, but…' or 'I'm afraid that….' The intensive form raises this to the level of outright despair, as in 'Oh, God…' or 'Oh, no!….'

5.11.1.9 RVL REVELATIVE

This bias expresses a sense of discovery, as conveyed by expressions such as 'No wonder….' or 'So that's why….' The intensive form raises this to a sense of surprised revelation, as in 'Aha!….' or 'Well, well, well!….'

5.11.1.10 GRT GRATIFICATIVE

This bias conveys a sense of pleasantness or mild pleasure, as conveyed by expressions such as ‘It’s pleasant to…’ or ‘I like to….’ The intensive raises this to a state of bliss or rapture, as in ‘Oh, there’s nothing like….’ or ‘(Sigh) What bliss it is to….’

5.11.1.11 SOL SOLICITIVE

This bias expresses the Ithkuil equivalent of English ‘please.’ In its intensive form, this transforms into an impatient demand, expressed in ‘C’mon!,’ ‘What’re you waiting for?’ or the phrase ‘so…already!’ as in the sentence *So dance already!*

5.11.1.12 SEL SELECTIVE

This bias conveys the idea of subjective interpretation, as seen in expressions such as ‘Look at it this way…,’ ‘As I see it,…,’ ‘Subjectively speaking,…,’ or ‘From one point of view,….’ In its intensive form, it conveys a narrow, singleminded interpretation, as conveyed by expressions such as ‘It can only mean one thing…,’ ‘and that’s that!’ ‘and that’s all there is to it!’ or ‘There’s no two ways about it,….’

5.11.1.13 IRO IRONIC

This bias conveys a sense of understatement, as conveyed in many subtle ways in English such as tone of voice or deliberately undramatic word choices. In its intensive form, this sense is raised to that of blatant irony, as when saying ‘Well! That was fun!’ after an unpleasant or harrowing experience.

5.11.1.14 EXA EXASPERATIVE

This bias conveys a sense of impatient exasperation, as conveyed by expressions such as ‘Look, don’t you get it?…’ or ‘Look, I’m trying to tell you….’ In its intensive form, this bias conveys a sense of outright mockery, as expressed by a mocking tone of voice in English, or by an deliberate, exasperated echolalia, i.e., the repeating of a person’s words back at them in contempt.

5.11.1.15 LTL LITERAL

This bias underscores a distinction between context and literalness, expressed by the English phrases ‘technically speaking’ or ‘Context aside for a moment,…’ as in *Technically speaking, that’s not a polka* (i.e., it’s a polka version of a non-polka song). In the intensive form, this bias conveys a sense of total literalness and exactitude, expressed in English by phrases such as ‘strictly speaking’ or ‘to put it in clinical terms….’ as in *Strictly speaking, that’s not a polka* (i.e., its rhythm is not that of a true polka).

5.11.1.16 CRR CORRECTIVE

This bias indicates a correction on the part of the speaker, as expressed in English by ‘that is to say…,’ ‘What I mean(t) to say is…’ or ‘I mean….’ The intensive form indicates a sense of subjective equivalence, as expressed in English by ‘in a manner of speaking,’ ‘so to speak,’ or ‘for all intents and purposes.’

5.11.1.17 EUP EUPHEMISTIC

This bias indicates a rephrasing or substitution of wording for means of clarification, as expressed in English by ‘in other words…’ or ‘to put it more exactly….’ The intensive form conveys a sense of outright euphemism, as expressed in English by phrases such as ‘Let’s just say that….’ or ‘Well, let me put it this way….’

5.11.1.18 SKP SKEPTICAL

This bias conveys a sense of skepticism, as expressed in English by ‘It’s (a little) hard to believe that….” The intensive form raises this sense to that of outright incredulity, as in a derisive ‘Oh, yeah! Suuuure!’ or a sneering ‘Yeah, right!’

5.11.1.19 CYN CYNICAL

This bias conveys a sense of incredulous unexpectedness or cynical surprise, as in “You mean to tell me…?’ or ‘You gotta be kidding me, ….’ The intensive form shifts this to outright sarcasm upon the discovery, as in ‘So! You just had to go and…’ or ‘Well, wouldn’t you know it, …’ or ‘Oh, nice!….’

5.11.1.20 CTP CONTEMPTIVE

This bias expresses simple disapproval, as conveyed by phrases such as “I don’t like the fact that…’ or ‘It bothers me that….’ The intensive form raises this to all-out contempt or disgust, as conveyed by ‘Shit!’ or ‘What nonsense!’ or ‘What bullshit!’

5.11.1.21 DSM DISMISSIVE

This bias conveys a sense of downplaying or lowering of expectations, as expressed in English by “sorry, but…’ or ‘It’s nothing. It’s just…” as in It’s just a small cut or Sorry, but it’s only the mailman. The intensive form expresses outright dismissal or insignificance, as conveyed by such expressions as ‘Is that it?’ ‘Big deal!’ or ‘So what!?’

5.11.1.22 IDG INDIGNATIVE

This bias conveys a sense of second-guessing, as expressed in English by ‘I’m sorry, what did you say?’ or ‘Say again? You want me to what?’ or ‘I beg your pardon?’ The intensive form shifts this sense to outright indignation, as conveyed by expressions such as ‘The nerve!’ or ‘How dare…!?”

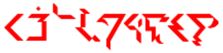
5.11.1.23 SGS SUGGESTIVE

This bias conveys the sense of suggestiveness conveyed in English by such phrases as ‘what if…’ or ‘It could be that….’ The intensive form shifts this to a sense of a formal suggestion or proposition, as in ‘Consider this: …’ or ‘Posit the following: …’ or ‘Assume for the sake of argument that….’

5.11.1.24 PPV PROPOSITIVE

This bias expresses a proposal or suggested activity, as conveyed by English phrases such as ‘How about,’ ‘We could,’ or general suggestions, as in the sentences *How about going for a stroll?*, *We could meet the clowns behind the barn if you want*, or *You can sit on my lap*. The intensive form turns this into an ultimatum, as conveyed in English by phrases such as ‘take it or leave it,’ ‘this is your last chance,’ or ‘it’s now or never.’

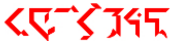
5.11.2 Examples of Bias in Use



Isvala’kss êzguirs èkšôt âmmit. LISTEN

DYN-‘fear’-NRM/DEL/M/CSL/UNI-EXS-IFL-**SKP+** STA-‘sound.of.laughter’-DER-NRM/PRX/M/CSL/AGG-IFL STA-‘clown’-ATT-NRM/DEL/U/CSL/UNI-FML STA-‘child’-AFF-NRM/DEL/U/CSL/UNI-IFL

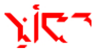
You can hardly expect us to believe that the sound of the clowns’ laughter frightens the children.



Uzlasa’nn gvarl âpcââl.

STA-‘inside-out’-PRX/M/CSL/UNI-EXS-IFL-**ASU+** ‘article of clothing’-OBL-DEL/M/ASO/AGG FML-‘wife’-POS-DEL/M/CSL/UNI

You see?! I told you his wife’s clothes are inside-out!



Hwe’maklasá’ň. (OR Hweklasürná’ň.)

INF-STA-ASR/FRG/PPS-‘rain’-NRM/PRX/M/CSL/UNI-FRM-**COI**

It may just so happen to be raining.

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Chapter 6: More Verb Morphology

6.1 Modality
6.2 Level
6.3 Alternate Representation of Formative Categories
6.4 Incorporation and Format

In this chapter, we examine two additional morphological categories — **Modality** and **Level** — as well as the morpho-syntactic process called **Incorporation** and its associated morphological category **Format**. Modality and Level are shown via a word separate from the formative itself, the **verbal adjunct**. The concept of adjuncts was previously discussed in Section 2.4 and 2.4.2. A verbal adjunct is placed either immediately preceding or immediately following a verbal formative, and provides additional morphological information about the formative.

Note that, in addition to conveying Modality and Level, the verbal adjunct also has slots for conveying certain categories usually conveyed by the formative, specifically Valence, Phase, Sanction, Illocution, Aspect, Mood, Bias, and Extension. Therefore, a verbal adjunct can be used to convey these other categories in order to decrease the number of syllables of the formative and facilitate pronunciation/euphony of the sentence as whole. This is discussed in Section 6.3.

The structure of a **verbal adjunct** is as follows. Those slots which are exclusive to verbal adjuncts (i.e., not also found in the formative) are Slots B and D:

A	B	C	D	E	F	G	H
(((Cʟ)	Ve)	Cv)	Vm)	**Cs**	(Vs	(Cb))	**[tone]**
Valence	Level	Phase + Saction + Illocution	Modality	Aspect	Aspect	Bias	Extension

The **Cs** aspectual infix in Slot E is mandatory, even if it carries a null value (i.e., no aspect). The **Cs** consonantal affix will always contain one of the specialized dyssyllabic geminate clusters described in Section 1.2.1.3, written **n-n**, **m-m**, **l-l**, **r-r**, etc. as well as various other syllabic consonant clusters, e.g., **l-m**, **l-n**, **r-m**, **r-n**, and **r-ň**. The second member of the dyssyllabic consonant cluster always carries the word stress and tone in a verbal adjunct. It is the appearance of such a dyssyllabic geminate cluster as the last, or second-to-last consonantal form in the word that identifies the word to readers/listeners as a verbal adjunct.

The default tone of a verbal adjunct is falling. However, variations in the tone of a verbal adjunct can be used to convey the accompanying formative’s Extension category, in order to simplify the phonetic structure of the Formative's **Ca** affix (see Chapter 3) for purposes of euphony and ease of pronunciation. This is discussed in Section 6.3.5 below.

For an example of a verbal adjunct, the example verb at the beginning of Chapter 5 (Section 5.0) is repeated here:

hreštrul-lyö’ň ¯hnič^{h}***âçtau’wètkwöu***

The first word of this two-word phrase is the adjunct, analyzable as follows:

A	B	C	D	E	F	G	H
hr	**e**	**štr**	**u**	**l-ly**	**ö**	**’ň**	**[falling tone]**

DEMONSTRATIVE valence	SURPASSIVE-RELATIVE level	RECURRENT phase REFUTATIVE sanction DIRECTIVE illocution	DESIDERATIVE modality	REGRESSIVE aspect	IMMINENT aspect	COINCIDENTAL bias	[default EXTENSION]

6.1 MODALITY

Modality corresponds roughly to the function of both modal verbs in Western languages (e.g., *can, may, must, should*, etc.) as well as those verbs which modify a following verb such as t*o want to, to choose to, to need to, to offer to, to demand that*, etc. However, in Ithkuil, the effect of such modifications on a verb causes a fundamental change in the cognitive interpretation of the verb, usually resulting in a modification of both the Essence (see Sec. 3.5) and the Perspective (see Sec. 3.3) of the verb, as well as invoking the use of the ACTIVATIVE case to mark the "subject" noun (see Sec. 4.3.9). The nature of these modifications is explained as follows: As we saw in Sections 3.5 and 4.3.9, it is possible in human language to speak about events that are either unreal, as-yet-unrealized, or alternative versions of reality. Specifically, nouns and verbs can make reference to hypothetical representations of real-world counterparts from within an "alternative mental space" created psychologically (and implied linguistically). This alternative mental space is essentially the psychological realm of potential and imagination. It is seen, for example, in the following sentences.

1) *You must* ***come home at once***.
2) *That girl can* ***sing better than anybody***.
3) *Our troops should* ***attack at dawn***.
4) *Mother needs* ***you to come with her***.
5) *The teacher requests that* ***I dance for you***.
6) *The man believes* ***clowns are dangerous***.

Each of the above sentences describe potential or unreal events, not actual real-world happenings that are occurring or have occurred. In Sentence (1) no one has yet come home, in Sentence (2) the girl may choose never to sing again, Sentence (3) does not tell us whether any attack will actually occur, Sentence (4) does not indicate whether you will come or not, Sentence (5) does not indicate whether I will dance, nor does Sentence (6) establish whether or not clowns are, in fact, dangerous.Because the clauses following the verbs *must, can, should, need, request, believe*, in the above sentences all refer to unrealized, imagined, or hypothetical events, the nouns and verbs within those clauses would be marked in the ABSTRACT perspective (see Sec. 3.3) and the REPRESENTATIVE essence (see Sec. 3.5). The "subject" nouns which invoke the event (the nouns *you, girl, troops, mother, teacher*, and *man* in the six sentences above) would be marked in the ACTIVATIVE case (see Sec. 4.3.9). It should be noted that not all Ithkuil modalities necessarily invoke hypothetical or unrealized events. For example, in the sentence *She chose to move to Australia*, the verb *chose* signals that the following clause is spoken of abstractly (i.e., it is the act of choice that is being talked about, not the move itself), but nevertheless refers to an actual event (i.e., she did, in fact, move to Australia). Thus, the *move to Australia* clause would be marked in the ABSTRACT perspective but would *not* be marked in the REPRESENTATIVE essence. Thus, the requirement that an Ithkuil modality construction invoke modifications in the perspective, essence and case of the associated nouns and verbs is entirely dependent on the semantics and cognitive intent of the utterance.

There are 30 modalities in Ithkuil. Modality is marked by the **Vm** vocalic affix in Slot D of a verbal adjunct.

A	B	C	D	E	F	G
(((CL)	Ve)	Cv)	Vm)	**Cs**	(Vs	(Cb))
Valence	Level	Phase + Sactions + Illocutions	Modality	Aspect	Aspect	Bias

The 30 modalities and their respective **Vm** affixes are shown in Table 16 below. The function of each modality is described in the sub-sections following the table.

Table 16: Vm Modality Affixes

	1Label	Name	Vm-affix		Label	Name	Vm-affix
	--	(no modality)	**a**	15	ITV	Intentive	**iu**
1	DES	Desiderative	**u**	16	ANT	Anticipative	**au**
2	ASP	Aspirative	**e**	17	DSP	Dispositive	**eu**
3	EPC	Expectative	**o**	18	PRE	Preparative	**ou**
4	CRD	Credential	**i**	19	NEC	Necessitative	**ae**
5	REQ	Requisitive	**ö**	20	DCV	Decisive	**ia / ua**
6	EXH	Exhortative	**î / û**	21	PTV	Proclivitive	**ie / ue**
7	OPR	Opportunitive	**â**	22	VOL	Voluntative	**io / uo**
8	CPC	Capacitative	**ê**	23	ACC	Accordative	**iö / uö**
9	PRM	Permissive	**ô**	24	ICL	Inclinative	**ea**
10	PTN	Potential	**ü / oe**	25	CML	Compulsive	**oa**
11	CLS	Compulsory	**ai**	26	DVR	Divertive	**öi / ië**
12	OBG	Obligative	**ei**	27	DVT	Devotive	**öu / uë**
13	IMS	Impositive	**ui**	28	PFT	Preferential	**eo**
14	ADV	Advocative	**oi**	29	IPS	Impressional	**ëi**
				30	PMS	Promissory	**ëu**

6.1.1 DES The Desiderative

The DESIDERATIVE more or less corresponds to English constructions expressing desire, e.g., to want to, to desire that, etc. as in *The teacher wants the students to study hard*.

6.1.2 ASP The Aspirative

The ASPIRATIVE corresponds to English constructions expressing wishing or hoping, e.g., to wish that, to hope that, etc.

6.1.3 EPC The Expectative

The EXPECTATIVE corresponds to English constructions expressing expectation, as in *He expected her to be beautiful*, or *I imagine he's reached his destination*.

6.1.4 CRD The Credential

The CREDENTIAL corresponds to English constructions expressing belief, as in *I think she has two sons*, or *We believe the earth to be round*. Note that it does not correspond to English expressions of opinion, i.e., it would not be used in translating sentences such as *I think she's pretty*.

6.1.5 REQ The Requisitive

The REQUISITIVE corresponds to English constructions expressing requests, as in *I request his presence at the banquet*, or *I'd like you to visit your father.*

6.1.6 EXH The Exhortative

The EXHORTATIVE corresponds to English expressions of exhortation or demand, as in *I demand you return my book* or *Let the gates be opened!*

6.1.7 OPR The Opportunitive

The OPPORTUNITIVE corresponds to the English modal verb *can/could/be able* where it means 'have the opportunity to,' as in *Can we pass by our old house when we visit town?* or *Because of the delay, she was able to go to the museum after all.*

6.1.8 CPC The Capacitative

The CAPACITATIVE corresponds to the English modal verb *can/could/be able* where it means ‘have the ability or capacity to,’ as in *Can she sing opera?* or *He could run like the wind*. Note that it would also be used when translating English generic statements implying ability or capacity as in *He speaks French like a native* [i.e., the sentence does not imply he is speaking French at the moment, but rather his general ability to do so].

6.1.9 PRM The Permissive

The PERMISSIVE corresponds to the English modal verbs *can/could/be able* or *may/might* where they mean ‘be permitted to,’ as in *Very well, you can have ice cream for dessert*; or *Could I talk to you?*

6.1.10 PTN The Potential

The POTENTIAL corresponds to the English modal verb *can/could/be* able where it means ‘have the potential to or the possibility of,’ as in *Remember it can flood suddenly in this area*, or *That man could fly into rages for no reason*. It is also used when translating generic statements implying potential or possibility, as in *It rains unpredictably in the Northwest*.

6.1.11 CLS The Compulsory

The COMPULSORY corresponds to the English modal verbs *must* or *have to/had to* in their meaning of compulsory obligation, as in *You must get up now*, or *I had to attend the ceremony*.

6.1.12 OBG The Obligative

The OBLIGATIVE corresponds to the English modal verbs *should*, *ought to*, or other phrases expressing optional but preferential obligation, as in *You ought to see a dentist, I should tell her how I feel*, or *It would be best if the children stayed away from clowns*.

6.1.13 IMS The Impositive

The IMPOSITIVE corresponds to English expressions such as *be supposed to, be expected to*, or *be to* which impose an expectation upon a party, as in *You're supposed to smile when introduced*, or *He is to give a speech at the banquet*.

6.1.14 ADV The Advocative

The ADVOCATIVE corresponds to English expressions such as *suggest tha*t or *propose that* which advocate a position, as in *I suggest you study harder* or *They proposed that the clowns take their circus tent elsewhere*.

6.1.15 ITV The Intentive

The INTENTIVE corresponds to English expressions such as *intend to*, *plan on* or *shall* which convey an intention, as in *The girls plan on travelling to Europe*, or *I shall see to it*.

6.1.16 ANT The Anticipative

The ANTICIPATIVE corresponds to English expressions such as *to look forward to* or *to eagerly await* which convey positive anticipation, as in *We look forward to the clowns coming to town*.

6.1.17 DSP The Dispositive

The DISPOSITIVE corresponds to the English expression *to be willing to*, conveying willingness as in *He is willing to give his life to defeat the clowns*.

6.1.18 PRE The Preparative

The PREPARATIVE corresponds to the English expressions *be ready to* or *be prepared to*, indicating readiness, as in *She's ready to host the party*, or *They are prepared to endure harsh weather*.

6.1.19 NEC The Necessitative

The NECESSITATIVE corresponds to the English expressions *need to* or *be necessary to*, indicating necessity, as in *You need to do something about those clowns in the yard*, or *It was necessary to inform her about the atrocities*.

6.1.20 DCV The Decisive

The DECISIVE corresponds to English expressions such as *decide to* or *choose to*, indicating choice, as in *Peter decided to cook breakfast* or *Colleen chose to visit the clowns*.

6.1.21 PTV The Proclivitive

The PROCLIVITIVE corresponds to English expressions such as *tend to, be apt to*, or *be prone to*, indicating tendency, as in *The wolverine tended to eat platypus eggs*, or *Boris is apt to make a fool of himself when meeting women*.

6.1.22 VOL The Voluntative

The VOLUNTATIVE corresponds to English expressions such as *offer to* or *volunteer to*, indicating an act of offering as in *The foreman offered to put poison in my beer*, or *Mrs. Blathermot volunteered to bake artichoke pie for the Open House event*.

6.1.23 ACC The Accordative

The ACCORDATIVE corresponds to the English expression *agree to*, as in *Constance agreed to perform her go-go number at the talent show*.

6.1.24 ICL The Inclinative

The INCLINATIVE corresponds to English expressions such as *to feel like* or *be up for*, indicating an impulsive desire, as in *He's up for going to the shindig*, or *Molly felt like eating the entire chocolate cake*.

6.1.25 CML The Compulsive

The COMPULSIVE corresponds to English expressions such as *feel driven to* or *feel a need to*, indicating compulsion, as in *Jack feels driven to hunt wolverines*, or *My hairdresser feels a need to date bikers*. It is marked by addition of the suffix **-uï** to a conflational or valence adjunct.

6.1.26 DVR The Divertive

The DIVERTIVE corresponds to English expressions such as *like to*, or *enjoy*, conveying simple likes and pasttimes as in *Boys like to dream about cars*, or *My salamander enjoyed biting people on their rump*.

6.1.27 DVT The Devotive

The DEVOTIVE corresponds to English expressions such as *be devoted to* or *be committed to*, indicating devotion as in *Charlotte is committed to being the best seamstress in town*, or *They were devoted to rooting for the losing team*.

6.1.28 PFT The Preferential

The PREFERENTIAL corresponds to English expressions such as *prefer*, or *would rather that*, indicating preference as in *He'd rather work by himself*, or *Muldane prefers that his cats eat live food*.

6.1.29 IPS The Impressional

The IMPRESSIONAL corresponds to English expressions such as *have an impression that, have a hunch that*, or *feel that*, indicating a subjective belief or impression as in *I've a hunch that the porter is an alcoholic*, or *Betty feels her husband flirts too much with the secretarial pool*.

6.1.30 PMS The Promissory

The PROMISSORY corresponds to English expressions such as *promise*, or *swear that*, indicating a self-imposed obligation as in *She promised that her son would visit my daughter*, or *Hargreaves swears that the fish from that lake are sentient*.

6.1.31 Examples of Modality in Use

Wëtöin-n eltac qeiwi.
RCP-PPS/CTX/ASR-DVR-FAC DYN-'write message'-NRM/DEL/A/CSL/UNI-IFL ma-ACT-CSL-NRM/DPX
The two of them like writing to each other.

Hëtiun-n ivigwařļokkai ţei.
PRL-ITV-FAC DYN-[inc.stem: 'recreation.leisure']-'ambulate'-NRM-DEL/M/CSL/CPN-TPP$_1$/7-ISR 1+ma-ACT
She and I are planning on taking a walk later on.

On-n amnadya osmuil.
EPC-FAC STA-'awe'-RPV/PRX/A/CSL/UNI-IFL IFL-'valley'-DER-NRM/DEL/M/CSL/UNI
The valley is expected to be awe-inspiring.

Ur-rwu ivadya âbyeil.
DES-FAC/RSM-RTR DYN-'play'-RPV/PRX/A/CSL/UNI-IFL STA-'dog'-ACT-NRM/DEL/M/CSL/UNI-IFL
The dog wanted to play some more.

6.2 LEVEL

Level corresponds roughly to what is known as degree of comparison in other languages. Many languages morphologically indicate degrees of comparison as exemplified by the English suffixes *-er* and *-est* seen in *great-greater-greatest*, or alternately with the adverbs *more* and *most*, as well as their negative counterparts *less* and *least*. The Ithkuil comparison schema is much more complex than those found in natural languages and is designed to eliminate various ambiguities that arise from those simpler schemata, as discussed below.

6.2.1 Ambiguity and Under-specification in Natural Languages

The comparison schemata of natural languages tend to grossly under-specify the exact semantic nature of the comparison. A clear case of such under-specification can be seen in an English example sentence such as *Jane is healthier*. This sentence can mean any of the following:

(a) Jane's state of health has improved, although she is still unwell.
(b) Jane's state of health has improved so that now she is well (whereas before she was unwell).
(c) Jane's state of health is even better than it previously was (i.e., she was healthy before, but is even healthier now).
(d) Jane's state of health is not as poor as someone else's state of health (although neither Jane nor the other person are well).
(e) Jane's state of health is better than someone else's state of health, so that Jane can be considered healthy while the other is unwell.
(f) Jane's state of health is better than someone else's state of health, even though both can be considered healthy.

This ambiguity is not alleviated even when we specify a party to which Jane's health is being compared as in *Jane is healthier than Sue*, which can mean:

(a) Jane's state of health is not as poor as Sue's although both are unwell.
(b) Jane's state of health is better than Sue's, so that Jane can be considered well while Sue is unwell.
(c) Both Jane and Sue are healthy, but Jane's state of health is even better than Sue's.
(d) Jane's state of health is not as poor as Sue's (although neither Jane nor the other person are well).

This sort of ambiguity allows odd-sounding sentences such as *Snow is warmer* (e.g., than liquid nitrogen) to be perfectly grammatical. What is important to note about the above analysis is that the words *healthier* or *warmer* do not indicate in the actual context of usage *whether a person is actually healthy or whether snow is actually warm*. Rather English *-er* and *-est* (and *more* and *most*) as well as their negative counterparts (*less* and *least*) merely serve to indicate *on a relative scale* a relationship between two entities being compared (or where only one party is mentioned, in relationship to some unspecified standard or expectation). Additional statements are needed to clarify the actual context to determine where the entities fall on the quantitative "spectrum" or range of the particular quality or attribute pair in question, e.g., *unhealthy <—> healthy*.

The comparison scheme of Ithkuil has been designed to inherently specify such relative comparison while simultaneously specifying placement within the qualitative spectrum, so that ambiguity as to whether "healthier" means the person is well or unwell is eliminated.

6.2.2 Relative Versus Absolute Comparison

An additional aspect of Ithkuil comparison is the concept of **relative comparison** versus **absolute comparison**. This is an important concept which impacts the truth value of a statement based upon context. Specifically, relative comparison allows for statements to be true within the narrow confines of the context-at-hand, whereas absolute comparison allows for statements to be true without reference to any specific context. This can be illustrated by the following examples.

(a) Sirius is the brightest star in the night sky.
(b) That highway is the fastest way into town.

Both of these sentences are true in certain pragmatic contexts and not true in others. For example, while Sirius is the most luminous star as seen from Earth, this is merely due to its relative nearness to Earth (8.4 light years) as compared to most other stars. There are thousands of known stars which are larger (and inherently more luminous) than Sirius but are much further away from Earth. So Sentence (a) is true in a relative context but false in an absolute context. Similarly the highway in Sentence (b) may be the fastest way in most conditions, but if there is a traffic jam or an accident blocking the highway, or if one has access to a private helicopter, then the statement would be false. Therefore, it is only true in a narrow context determined by the pragmatics of the moment it is spoken. Ithkuil allows speakers to specify whether a comparison is to be interpreted within the context-at-hand (relative comparison) or as an absolute statement irrespective of the context-at-hand.

6.2.3 Comparison Operators (Levels)

There are nine comparison operators for the Ithkuil verb, called Levels, which specify the comparative relationship involved, e.g., *same as, more than, less than*, etc. These levels are marked by a word-initial vocalic prefix to the verb, **Ve**. Each prefix comes in two varieties, to distinguish between relative versus absolute comparison. Additionally there is an unmarked default zero-level in which no comparison is being made). The presence of a **Ve** prefix in Slot B of the verbal adjunct requires Slots C And D to be filled by their respective affixes as well.

A	B	C	D	E	F	G	H

(((CL)	Ve)	Cv)	Vm)	Cs	(Vs	(Cb))	[tone]
Valence	Level	Phase + Sanction + Illocution	Modality	Aspect	Aspect	Bias	Extension

NOTE: As an alternative to using **Ve**, Level can also be conveyed by the suffixes -V_1**mļ** and -V_2**mļ** added to the formative (placed in Slot XI), explained in Section 7.4.13 - LVL suffix.

In interpreting the meaning of the various Levels, the terms used in the formulas refer to the following **X-M-(Y)** model, where M represents a verb or an adjectival description, X is the "subject" of the verb, and Y is the standard being compared to.

Sue	dances as well as / dances better than / dances worse than etc.	Mary	**OR**	Sue	is as smart is smarter than is less smart than etc.	Mary
X	**M**	**(Y)**		**X**	**M**	**(Y)**

Note that the meaning of each Level allows for an interpretation in which there is no Y term so that the standard of comparison is a previous state of X, e.g., the difference between *Sue dances better than Mary* versus *Sue dances better than before*.

Table 17: Ve Level prefixes

		VL Prefix		Meaning
Label	Name of Level	RELATIVE	ABSOLUTE	
EQU	EQUATIVE	**a-**	**â-**	X M 's the same as Y (or as before) / X is as M as Y (or as before)
SUR	SURPASSIVE	**u-**	**û / î-**	X M 's more than Y (or than before) / X is more M than Y (or than before)
DFC	DEFICIENT	**i-**	**ö-**	X M 's less than Y (or than before) / X is less M than Y (or than before)
OPT	OPTIMAL	**o-**	**ô-**	X M 's at its most possible / X is at its most M possible
MIN	MINIMAL	**e-**	**ê-**	X M 's at its least possible / X is at its least M possible
SPL	SUPERLATIVE	**ai-**	**au-**	X M 's at its most yet / X is at its most M yet
IFR	INFERIOR	**ui-**	**iu-**	X M 's at its least yet / X is at its least M yet
SPQ	SUPEREQUATIVE	**ei-**	**eu-**	X M 's more than or = to Y (or than or equal to before) / X is more M than or = to Y / before
SBE	SUBEQUATIVE	**oi-**	**ou-**	X M 's less than or = to Y (or than or equal to before) / X is less M than or = to Y / before

Note that in verbal adjuncts where Valence is marked by a word-initial **CL** consonantal prefix in Slot A (see Sec. 6.3.4), but there is no Level, the neutral value of **Ve** in Slot B is **ë**.

6.2.4 The Comparison Cases

In addition to Level, there are 24 specialized noun cases which identify the exact nature of the comparison in relation to the quantitative spectrum, range, or standard for the particular attribute, quality, or act in question. These cases are applied to the noun to which something is compared, i.e., the term Y in the above formulas. So, for example, in the Ithkuil translation of the sentence *Jane is healthier than her sister*, the equivalent to *is healthier* would be shown by a Level prefix meaning "more than" applied to a formative meaning "manifesting a state of health," while the phrase corresponding to *than her sister* would be the word *sister* marked for a case which specifies whether the other noun to which the sister is being compared (i.e., Jane) is now well, or is nevertheless still unhealthy, etc.

It is primarily through the use of these specialized comparison cases that the ambiguities discussed above in Sec. 6.2.1 are eliminated. The meaning of each case as applied to Y, in terms of the X-M-Y formula discussed above, would be:

"in comparison to Y, where X Q in terms of reference standard S"

where Q indicates the change (or lack thereof) in X over time and S indicates an external standard of comparison for M. An example of this formula in use would be where the term Q = "was previously less M than Y" and S = "although X (still) isn't very M compared to some external standard or expectation of M-ness" applied to the sentence *Jane is healthier than Sue*, now disambiguated to mean that Jane, while being in a healthier stated than Sue, still isn't very healthy.

There are eight possible values for Q and three possible values for S, rendering a total of 24 possible Q + S combinations. It is these 24 possible Q + S combinations that are rendered as the Comparison cases in Ithkuil. The eight possible values for Q are as follows:

1	was previously less M (or M 'd less) than Y
2	was previously more M (or M 'd more) than Y
3	is still less M (or M 's less) than Y
4	is still more M (or M 's more) than Y
5	is now less M (or M 's less) than Y
6	is now more M (or M 's more) than Y
7	was previously as M (or M 'd as much) as Y
8	where X 's previous state of M-ness (or level of M-ing) relative to Y is unknown, inapplicable or irrelevant

The three possible values for S are as follows:

A	although X (still) isn't very M compared to some external standard or expectation of M-ness
B	where X meets/exceeds some some external standard or expectation of M-ness and Y does not
C	where both X and Y meet/exceed some external standard or expectation of M-ness, where previously only Y met/exceeded it

The eight values of Q combine with the three values of S to give the specific meanings of the 24 comparison cases as shown below in Table 18. As with the 72 primary cases (see Chapter 4) the 24 comparison cases are shown by the **Vc** infix to the formative in Slot VIII.

Table 18: The 24 Comparison Cases (as per the formula: **[X] [M] [in comparison to Y] where X Q in terms of reference standard S**)

Mutation Series	Label	Name of Case	Vc	Value of Q (change in X over time)	Value of S (Comparison to external standard)
73	**CMP1A**	COMPARATIVE 1A	**aì**	where X was previously less M (or M 'd less) than Y	although X (or X and Y) (still) isn't/aren't very M compared to some external standard or expectation of M-ness
74	**CMP2A**	COMPARATIVE 2A	**eì**	where X was previously more M (or M 'd more) than Y	
75	**CMP3A**	COMPARATIVE 3A	**oì**	where X is still less M (or M 's less) than Y	
76	**CMP4A**	COMPARATIVE 4A	**uì**	where X is still more M (or M 's more) than Y	
77	**CMP5A**	COMPARATIVE 5A	**aù**	where X is now less M (or M 's less) than Y	
78	**CMP6A**	COMPARATIVE 6A	**eù**	where X is now more M (or M 's more) than Y	
79	**CMP7A**	COMPARATIVE 7A	**où**	where X was previously as M (or M 'd as much) as Y	
80	**CMP8A**	COMPARATIVE 8A	**iù**	where X 's previous state of M-ness (or level of M-ing) relative to Y is unknown, inapplicable or irrelevant	
81	**CMP1B**	COMPARATIVE 1B	**ao**	where X was previously less M (or M 'd less) than Y	and where X (or Y) meets/exceeds some some extrenal standard or expectation of M-ness and Y (or X) does not
82	**CMP2B**	COMPARATIVE 2B	**aü**	where X was previously more M (or M 'd more) than Y	
83	**CMP3B**	COMPARATIVE 3B	**eü**	where X is still less M (or M 's less) than Y	
84	**CMP4B**	COMPARATIVE 4B	**oü**	where X is still more M (or M 's more) than Y	
85	**CMP5B**	COMPARATIVE 5B	**ëì**	where X is now less M (or M 's less) than Y	
86	**CMP6B**	COMPARATIVE 6B	**öì**	where X is now more M (or M 's more) than Y	
87	**CMP7B**	COMPARATIVE 7B	**ëù**	where X was previously as M (or M 'd as much) as Y	
88	**CMP8B**	COMPARATIVE 8B	**öù**	where X 's previous state of M-ness (or level of M-ing) relative to Y is unknown, inapplicable or irrelevant	
89	**CMP1C**	COMPARATIVE		where X was previously less M (or M 'd less) than Y	

		1C	eai		
90	**CMP2C**	COMPARATIVE 2C	**oai**	where X was previously more M (or M ’d more) than Y	
91	**CMP3C**	COMPARATIVE 3C	**eau**	where X is still less M (or M ’s less) than Y	
92	**CMP4C**	COMPARATIVE 4C	**oau**	where X is still more M (or M ’s more) than Y	
93	**CMP5C**	COMPARATIVE 5C	**uai / iau**	where X is now less M (or M ’s less) than Y	and where both X and Y meet/exceed some external standard or expectation of M-ness, where previously only Y met/exceeded it
94	**CMP6C**	COMPARATIVE 6C	**uei / ieu**	where X is now more M (or M ’s more) than Y	
95	**CMP7C**	COMPARATIVE 7C	**uoi / iou**	where X was previously as M (or M ’d as much) as Y	
96	**CMP8C**	COMPARATIVE 8C	**uëi / iëu**	where X ’s previous state of M-ness (or level of M-ing) relative to Y is unknown, inapplicable or irrelevant	

6.2.5 The COS Suffix

Since Level affixes modify a verb directly, there is still a potential for ambiguity due to the fact that Levels and the Comparison cases specify the relationship between two entities being compared, but they do not specify the particular parameter of the term M. In other words, the verb "laugh" in the SURPASSIVE Level might be best translated as "out-laugh," as in *Sam out-laughed George*, but we still do not know if this means the laugh was louder, longer, or "harder." Therefore, verbs marked for Levels often take the COS suffix as well, to specify the parameters of the quality or act in question. This suffix is found in the list of derivational suffixes in Chapter 7, but is shown here as well, for the sake of convenience. (See Chapter 7 for an explanation of the nine degrees and three suffix-types associated with derivational suffixes).

-V_x ks COS Comparison Specifications

1. “more”/“less” = extent/amount/volume
2. “harder”/“weaker” = degree of intensity or effort
3. “longer”/“shorter” = duration; time spent being/doing
4. “better”/“worse” = quality / style
5. “more efficiently”/“less efficiently” = efficiency / effort relative to outcome
6. “greater”/“poorer” = relevant outcome / bottom-line result
7. combo of 4, 5, and 6
8. combo of 1, 2, and 3
9. combo of 1 through 6

6.2.6 Examples of Level and the Comparison Cases in Use

(Note that in the morphological interlinear analysis below, the distinction between absolute versus relative Level is indicated by a small **“a”** versus a small **“r”** attached to the label/abbreviation for the particular Level.)

Ulan-n oxassûg êqil ôqoìl. LISTEN

SURr-ASR/CTX/IPU-FAC STA-‘have.eyesight’-NRM/PRX/M/CSL/DPX-FLS1/6-IFL STA-‘w oman’-AFF-NRM/DEL/M/CSL/UNI-IFL STA-‘man’-**CMP3A**-NRM/DEL/M/CSL/UNI-IFL

It is clear the woman’s eyesight has improved, but she still doesn’t see as well as the man, who doesn't see very well either.

Rril eglalaimļ byoail. LISTEN

STA-‘cat’-AFF-NRMDEL/M/CSL/UNI-IFL STA-‘sickness/illness’-NRM/DEL/M/CSL/UNI-**SPQa**-IFL STA-‘dog’-**CMP2C**-NRM/DEL/M/CSL/UNI-IFL

The cat is now at least as sick as the dog, if not more so, whereas previously only the dog was sick.

6.3 ALTERNATE REPRESENTATION OF FORMATIVE CATEGORIES

In Chapter 5 we discussed the verbal categories of Mood, Aspect, Bias, Phase, Sanction, Illocution, and Valence, and showed how each of these categories is manifested by various affixes within the structure of a formative. However, the structure of the verbal adjunct, discussed at the beginning of this chapter, allows for each of the aforementioned morphological categories to alternately be displayed via a verbal adjunct rather than a formative. This is often desirable for purposes of phonological euphony or to address the limitations of phonotactic constraints (see Section 1.4). The sub-sections below discuss the specifics on the alternate representations of these categories via a verbal adjunct.

6.3.1 Alternate Representation of Mood and/or Aspect

The categories of Mood and Aspect were previously discussed in Section 5.2 and Section 5.10 respectively. Mood is normally shown (along with Illocution) via the Ci+Vi infix to a formative in Slot IX, although it can alternately be shown along with Aspect via the **Cs** affix to a formative in Slot III. However, the use of the Cs affix in Slot III of a formative, unless required by the presence of affixes in Slots I or II, is generally undesirable as its presence adds two syllables to the length of the formative. Therefore, as an alternative, Aspect and/or Mood can be conveyed by the same **Cs** affix within a verbal adjunct in Slot E. This **Cs** affix is mandatory for all verbal adjunct.

The second syllable of the **Cs** affix (i.e., the second member of one of the dyssyllabic consonant clusters **l-l**, **m-m**, **n-n**, **ň-ň**, **r-r**, **l-m**, **l-n**, **r-m**, **r-n**, and **r-ň**) always receives the syllabic stress and tone in a verbal adjunct.

A	B	C	D	E	F	G	H
(((CL)	Ve)	Cv)	Vm)	**Cs**	(Vs	(Cb))	**[tone]**
Valence	Level	Phase + Sanction + Illocution	Modality	**Aspect**	**Aspect**	Bias	Extension

A second verbal aspect can be shown within a verbal adjunct utilizing the **Vs** affix in Slot F. Each of the 32 aspects, in addition to their consonantal **Cs** form, has a vocalic affixual form **Vs**, shown in the table below.

Table 19: Values for Vs Aspectual Markers and Cs Aspect+Mood Markers

(values in red corrected in October 2011)

			MOOD								
				FAC	**SUB**	**ASM**	**SPC**	**COU**	**HYP**	**IPL**	**ASC**
Aspect			**Vs**								
	(none)		a	n-n	m-m	l-l	r-r	ň-ň	r-n	l-ň	r-ň
1	**RTR**	RETROSPECTIVE	u	n-nr	n-nt	n-nt’	n-nd	n-nt^h	n-nţ	n-ndh	n-nh
2	**PRS**	PROSPECTIVE	e	m-mr	m-mp	m-mp’	m-mb	m-mp^h	m-mf	m-mv	m-mh
3	**HAB**	HABITUAL	o	l-lr	l-lt	l-lt’	l-ld	l-lt^h	l-lţ	l-ldh	l-lh
4	**PRG**	PROGRESSIVE	i	r-rn	r-rt	r-rt’	r-rd	r-rt^h	r-rţ	r-rdh	r-rh
5	**IMM**	IMMINENT	ö	ň-ňr	ň-ňk	ň-ňk’	ň-ňg	ň-ňk^h	ň-ňx	ň-ňq	ň-ňh
6	**PCS**	PRECESSIVE	î/û	n-nw	n-ntw	n-nt’w	n-ndw	n-nt^{h}w	n-nţw	n-ndhw	n-nhw
7	**REG**	REGULATIVE	â	m-mw	m-mpw	m-mp’w	m-mbw	m-mp^{h}w	m-mfw	m-mww	m-mhw
8	**EXP**	EXPERIENTIAL	ê	l-lw	l-ltw	l-lt’w	l-ldw	l-lt^{h}w	l-lţw	l-lđw	l-lhw

9	**RSM**	RESUMPTIVE	ô	r-rw	r-rtw	r-rt’w	r-rdw	r-rt^{h}w	r-rţw	r-rdhw	r-rhw
10	**CSS**	CESSATIVE	ü/oe	ň-ňw	ň-ňkw	ň-ňk’w	ň-ňgw	ň-ňk^{h}w	ň-ňxw	ň-ňqw	ň-ňhw
11	**RCS**	RECESSATIVE	ai	n-ny	n-nty	n-nt’y	n-ndy	n-nt^{h}y	n-nţy	n-ndhy	n-nç
12	**PAU**	PAUSAL	ei	m-my	m-mpy	m-mp’y	m-mby	m-mp^{h}y	m-mfy	m-mvy	m-mç
13	**RGR**	REGRESSIVE	ui	l-ly	l-lty	l-lt’y	l-ldy	l-lt^{h}y	l-lţy	l-ldhy	l-lç
14	**PCL**	PRECLUSIVE	oi	r-ry	r-rty	r-rt’y	r-rdy	r-rt^{h}y	r-rţy	r-rdhy	r-rç
15	**CNT**	CONTINUATIVE	iu	n-ns	n-nz	n-nsw	n-nzw	n-nc’	n-nc^{h}	n-nc’w	n-nc^{h}w
16	**ICS**	INCESSATIVE	au	m-ms	m-mz	m-msw	m-mzw	m-mc’	m-mc^{h}	m-mc’w	m-mc^{h}w
17	**PMP**	PREEMPTIVE	eu	ň-ňs	ň-ňz	ň-ňsw	ň-ňzw	ň-ňc’	ň-ňc^{h}	ň-ňc’w	ň-ňc^{h}w
18	**CLM**	CLIMACTIC	ou	l-ls	l-lz	l-lsw	l-lzw	l-lc’	l-lc^{h}	l-lc’w	l-lc$^{h’}$w
19	**PTC**	PROTRACTIVE	ae	r-rs	r-rz	r-rsw	r-rzw	r-rc’	r-rc^{h}	r-rc’w	r-rc^{h}w
20	**TMP**	TEMPORARY	ia/ua	n-nš	n-nž	n-nšw	n-nžw	n-nč’	n-nč^{h}	n-nč’w	n-nč^{h}w
21	**MTV**	MOTIVE	ie/ue	m-mš	m-mž	m-mšw	m-mžw	m-mč’	m-mč^{h}	m-mč’w	m-mč^{h}w
22	**CSQ**	CONSEQUENTIAL	io/uo	ň-ňš	ň-ňž	ň-ňšw	ň-ňžw	ň-ňč’	ň-ňč^{h}	ň-ňč’w	ň-ňč^{h}w
23	**SQN**	SEQUENTIAL	iù /uì	l-lš	l-lž	l-lšw	l-lžw	l-lč’	l-lč$^{h’}$	l-lč’w	l-lč^{h}w
24	**EPD**	EXPEDITIVE	iö/uö	r-rš	r-rž	r-ršw	r-ržw	r-rč’	r-rč^{h}	r-rč’w	r-rč^{h}w
25	**DCL**	DISCLUSIVE	ea	n-nļ	m-mļ	ň-ňļ	n-ntļ	m-mtļ	ň-ňtļ	l-ltļ	r-rtļ
26	**CCL**	CONCLUSIVE	oa	l-lm	l-lļ	n-nl	ň-ňm	m-mř	m-mt	ň-ňt	ň-ňn
27	**CUL**	CULMINATIVE	eö	r-rm	r-rl	m-ml	m-mn	r-mř	m-mt’	ň-ňt’	ň-ňç
28	**IMD**	INTERMEDIATIVE	öi/öa	l-ln	l-nļ	l-lř	n-nm	ň-ňř	m-mt^{h}	ň-ňt^{h}	ň-ňţ
29	**TRD**	TARDATIVE	öu/öe	l-nw	l-ny	l-lg	l-lgw	l-lx	l-lxw	l-lv	l-lcw
30	**TNS**	TRANSITIONAL	eo	r-nw	r-my	r-rg	r-rgw	r-rx	r-rxw	r-rv	r-rcw
31	**ITC**	INTERCOMMUTATIVE	ëi	l-mw	l-my	l-lb	l-lbw	l-lf	l-lfw	l-ňw	l-lčw
32	**CSM**	CONSUMPTIVE	ëu	r-mw	r-ny	r-rb	r-rbw	r-rf	r-rfw	r-ňw	r-rčw

6.3.2 Alternate Representation of Bias

Bias was previously discussed in Section 5.11, shown by the word-final **Cb** suffix to a formative. As an alternative, however, the same **Cb** suffix can instead be placed in word-final position on a verbal adjunct (in which case a **Vs** affix in Slot F becomes mandatory). The forms of **Cb** used in verbal adjunct are the same as those used with formatives, except that, unlike formatives, there is no preceding glottal stop. See Table 15 in Section 5.11.1 for the specific **Cb** suffix for each bias.

A	B	C	D	E	F	G	H
(((CL)	Ve)	Cv)	Vm)	**Cs**	(Vs	(Cb))	**[tone]**
Valences	Level	Phase + Saction + Illocution	Modality	Aspect	Aspect	**Bias**	Extension

6.3.3 Alternate Represenation of Phase, Sanction, and Illocution

The categories of Phase, Sanction, and Illocution were previously discussed in Sections 5.5, 5.6, and 5.3 respectively. In a formative, they are shown by a combination affix, **Cv**, placed in Slot V, or if an incorporated stem is present, in Slot I. Alternately, however, they may be shown by the same **Cv** affix in Slot C of a verbal adjunct (which entails the mandatory presence of a **Vm** modality infix in Slot D). The forms of **Cv** for a verbal adjunct are the same as those for formatives, shown in Tables 11(a) through (f) in Section 5.5.

A	B	C	D	E	F	G	H
(((CL)	Ve)	Cv)	Vm)	**Cs**	(Vs	(Cb))	**[tone]**
Valence	Level	**Phase + Saction + Illocution**	Modality	Aspect	Aspect	Bias	Extension

6.3.4 Alternate Representation of Valence

The category of Valence was previously discussed in Section 5.7, shown by the vocalic prefix, **VL** in Slot VI, or, if an incorporated stem is present, in Slot II. Alternately, however, Valence may be shown by consonantal counterpart to the **VL** prefix, **CL**, placed in Slot A of a verbal adjunct (which entails the mandatory presence of affixes in Slots B, C, and D).

A	B	C	D	E	F	G	H
(((CL)	Ve)	Cv)	Vm)	**Cs**	(Vs	(Cb))	**[tone]**
Valence	Level	Phase + Saction + Illocution	Modality	Aspect	Aspect	Bias	Extension

The forms of CL for a verbal adjunct are the same as those for formatives, shown in Table 20 below:

Table 20: CL Valence Prefixes for Verbal Adjuncts

	Label	**Valence name**	**CL**
1	MNO	Monoactive	—
2	PRL	Parallel	**h-**
3	CRO	Corollary	**y-**
4	RCP	Reciprocal	**w-**
5	CPL	Complementary	**hw-**
6	NNR	Nonrelational	**hm-**
7	DUP	Duplicative	**hn-**
8	DEM	Demonstrative	**hr-**
9	RES	Resistive	**lw-**

10	IMT	Imitative	**ly-**
11	CNG	Contingent	**rw-**
12	PTI	Participative	**ry-**
13	IDC	Indicative	**řw-**
14	MUT	Mutual	**řy-**

6.3.5 Alternate Representation of Extension

The category of Extension is normally shown by means of the **Ca** affix in Slot X of the formative (see Sections 2.1, 3.4 and 3.5.3). However, in order to simplify the phonological structure of the **Ca** affix for purposes of euphony, Extension may be shown via the tone of the adjacent verbal adjunct. The default tone of a verbal adjunct is falling, which indicates deferral of Extension information to the Ca affix of the formative. Otherwise, Extension is conveyed by the following shifts in tone of the verbal adjunct.

Table 21: Extension As Shown by Tone Shifts in Verbal Adjunct

Tone	Extension
Falling	[Extension shown by formative]
High	PROXIMAL
Rising	INCEPTIVE
Low	TERMINATIVE
Falling-Rising	DEPLETIVE
Rising-Falling	GRADUATIVE

6.4 INCORPORATION AND FORMAT

Many languages, including English, are able to combine two separate meanings into a single verb, a process termed **conflation**. This is illustrated in the following English sentences:

1. *He bicycled south*. = He traveled south by bicycle.
2. *She dolled herself up*. = She made herself look as pretty as a doll.
3. *They're shelving the books*. = They're putting the books on the shelf/shelves.
4. *Slide me a beer*. = Give me a beer by sliding it (e.g., along the bar).

The above sentences show four verbs which respectively carry inherent senses of vector movement, transformation, positioning/placement, and giving. The patterning of such "conflated" verbs is usually random and haphazard in any given language. For example, the English *to bicycle* in sentence (1) means 'to travel by means of bicycle,' not 'to make a bicycle' or 'to be a bicycle.' On the other hand, the verb *to doll up* does not mean to 'travel by doll,' but rather 'to make appear like a doll.' Yet, *to shelve* means 'to place on a shelf,' not 'to travel by means of shelves' or 'to make appear like a shelf.' And none of the verbs in the first three sentences connotes the idea of giving or conveyance as does *slide* in sentence (4).

As can be seen, verb conflation is essentially a "short-cut" way of combining an unspoken primary verbal sense (such as movement, transformation, placement, giving, etc.) with an overtly expressed verb that conveys a secondary sense such as means, manner, or location. This can be formally notated for our four sentences above as follows:

He [1: (TRAVEL+past tense) south] [2: (BY-MEANS-OF) bicycle]
= ***He bicycled south***.

She [1: (CAUSE-TO-RESEMBLE+past tense+reflexive)] [2: (IN-THE-MANNER-OF) doll]
= ***She dolled herself up***.

They [1: (PUT+progressive) the books] [2: (TO-LOCATION-OF) shelves]
= ***They're shelving the books***.

[1: (GIVE+imperative)] a beer [2: (BY-MEANS-OF) sliding] to me
= ***Slide me a beer***.

Note that the particular unspoken covert and overt senses (shown by the numerals 1 and 2 in the above analyses) are specific to any given verb and must be subjectively learned by the listener, i.e., a speaker of English must learn that *to hand* means to GIVE by MEANS of one's hand, but *to shoulder* does **not** mean to GIVE by MEANS of one's shoulder.

Thus, while conflation of verbs presents a potential opportunity for instantiating verbs with patterns of overt and covert meaning, the lack of systemization prevents one from knowing with certainty what pattern to use when attempting to interpret the usage of a verb form.

Ithkuil systemizes verb conflation into a productive scheme, in which any formative stem can be incorporated directly into another formative stem. The operational sense of the incorporated stem and its semantic relation to the primary formative stem is conveyed by a morphological category called **format** (discussed in Section 6.4.1 below). The incorporated stem is is shown via the **Cx** and **Vp** affixes in Slots V and VI, where **Cx** indicates the root and **Vp** its Pattern, Stem and Designation. Format is shown as part of the **Vf** prefix which also shows the category of Context (previously discussed in Section 3.6).

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	**Vr**	(**Cx**/Cv	**Vp**/VL)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	('Cb))	**[tone]**	**[stress]**
Phase + Sanction (+ Illocution)	Valence	Validation OR Aspect	Pattern + Stem + Function	**Incorp.Root** OR Phase + Sanction (+ Illocution)	**Pattern + Stem + Designation of Incorp. Root** OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	Deriv. Suffix	Context + **Format**	Bias	Version	Designa-tion + Relation

If an incorporated stem is present (i.e., **Cx** and **Vp** are present in Slots V and VI) then a **Vf** affix showing the incorporated stem's Format must also be present in Slot XII (see Section 6.4.1 below for an explanation of Format).

The values for the **Vp** infix are shown in Table 22 below.

Table 22: Vp infixes indicating Pattern, Stem and Designation of an Incorporated Root

Stem Vowel —>		**Pattern 1**	**Pattern 2**	**Pattern 3**
Informal Designation	Stem 1	**a**	**i**	**u**
	Stem 2	**o**	**e**	**ö**
	Stem 3	**ai**	**ui**	**ei**
Formal Designation	Stem 1	**â**	**î / û**	**ô**
	Stem 2	**ê**	**oi**	**au**
	Stem 3	**eu**	**iu**	**ou**

6.4.1 Format

As described above, a conflated verb in English can convey different senses such as means, manner, or location, the specific sense being learnable only through actual usage and context. In Ithkuil, this sense is overtly identified by the **format** of the verb, shown by the **Vf** affix in Slot XII. The **Vf** affix was previously discussed in Section 3.6 on Context. Table 23 below shows the values of **Vf**.

Tables 23: Vf Affixes: Context & Format

	FORMAT									
Context↓ (see Sec. 3.6)	**(none)**	**SCH**	**ISR**	**ATH**	**RSL**	**SBQ**	**CCM**	**OBJ**	**PRT**	**AFI**
EXISTENTIAL	**(a)**	**o**	**ai**	**â**	**au**	**ëi**	**oa**	**ea**	**aì**	**aù**
FUNCTIONAL	**i**	**ö**	**ui**	**ae**	**iu**	**ëu**	**oe**	**ia / ua**	**uì**	**iù**
REPRESENTATIONAL	**e**	**ü / öe**	**ei**	**ê**	**eu**	**öi**	**eo**	**ie / ue**	**eì**	**eù**
AMALGAMATE	**u**	**öa**	**oi**	**ô**	**ou**	**öu**	**iö / uö**	**io / uo**	**oì**	**où**

The specific interpretation of the nine formats is often dependent on the verb's Function (see Section 5.1). This is explained in the sub-sections below for each format:

6.4.1.1 SCH The Schematic

For verbs carrying DYNAMIC Function (see Sec. 5.1.2), the SCHEMATIC function indicates that the incorporated stem specifies the manner of the primary stem. So for example, when translating the English sentence *I'm speeding through dinner* [= eating speedily], the Ithkuil sentence would incorporate the stem corresponding to 'speed' into the stem 'eat' plus SCHEMATIC function to convey a sentence literally translatable as *I'm speed-eating dinner* [= eating in a manner characterized by speed.]

Similarly, the Ithkuil translation of *Clouds blanketed the city* would incorporate the stem corresponding to 'blanket' into the stem for 'cover/engulf' plus SCHEMATIC function to convey a sentence literally translatable as *Clouds blanket-cover the city* [= cover like a blanket.]

For verbs carrying STATIVE Function (see Sec. 5.1.1), the SCHEMATIC function indicates that the incorporated stem characterizes the primary stem, i.e., the primary stem has the characteristics, behavior, or acts like the incorporated stem.

For verbs carrying MANIFESTIVE Function (see Sec. 5.1.3), the SCHEMATIC function indicates that the incorporated is equivalent in identity (i.e., a copula relationship) to the primary stem, i.e., the primary stem is the incorporated stem in an existential sense.

For verbs carrying DESCRIPTIVE Function (see Sec. 5.1.4), the SCHEMATIC function indicates that the incorporated has the superficial appearance or physically or (metaphorically) resembles the primary stem, i.e., the primary stem resembles/looks like the incorporated stem.

6.4.1.2 ISR The Instrumentative

The INSTRUMENTATIVE function indicates that the incorporated stem specifies the means, cause, or instrument of causation of the conflated primary sense, so that the sentence *I clubbed him* would be translated by incorporating the stem for 'club' into the stem for 'hit/beat' plus the INSTRUMENTATIVE format, rendering a sentence literally translatable as *I club-hit him* or *I club-beat him* [= I hit/beat him with a club].

6.4.1.3 OBJ The Objective

The OBJECTIVE function indicates that the incorporated stem specifies the Patient (see Sec. 4.1.1) of the primary stem. So, for example, the Ithkuil translation of *She dusted the table* would incorporate the stem 'dust' into the stem 'remove' to render a sentence literally translatable as *She dust-removed the table* [= removed dust]. Similarly the sentence *They fish that river each spring* would incorporate the stem 'fish' into the stem 'gather/collect' to render *They fish-gather that river each spring* [= gather fish]

6.4.1.4 ATH The Authoritive

The AUTHORITIVE function indicates that the incorporated stem specifies the entity of which the primary stem is the indirect/enabling cause or derivational source. So, for example, the Ithkuil translation of the English sentence *He sang her cares away* (= his singing allowed her to forget her cares) would incorporate the verb 'forget' into the verb 'sing' with AUTHORITATIVE format, the party 'he' in the EFFECTUATIVE case, and the party 'she' in the AFFECTIVE case.

6.4.1.5 PRT The Precurrent

The PRECURRENT function indicates that the incorporated stem specifies an initial event immediately preceding or continuing on into the main verb , where the initial event is not the cause of the conflated sense, i.e., the main act/state/event would have occurred anyway, e.g., *I bought some lunch* (conflated sense: EAT). First X, then Y (non-causal).

6.4.1.6 RSL The Resultative

The RESULTATIVE function indicates that the verb specifies the concurrent result of the conflated sense, i.e., an event which occurs in conjunction with the conflated sense but is also caused by it, e.g., *The plane crashed into the water* (conflated sense: FLY) First X, then Y as a result; X causes Y

6.4.1.7 SBQ The Subsequent

The SUBSEQUENT function indicates that the verb specifies the subsequent cause-and-effect purpose (not the concurrent result) of the conflated sense, e.g., *I'll look in on the stew* (conflated sense: GO [to kitchen]) X or the purpose of Y; X in order to Y

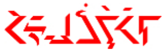
6.4.1.8 CCM The Concommitant

The CONCOMMITANT function indicates that the verb specifies an incidental simultaneous event having no causal relationship, e.g., *She wore jeans to church* (conflated sense: GO); *He sweated through her recital* (Conflated sense: LISTEN) X while Y

6.4.1.9 AFI The Affinitive

The AFFINITIVE function indicates that the incorporated stem is associated with, represents, or acts in behalf of the primary stem. So, for example, the English sentence *'They are a group of sports officiators'* would utilize the stem for 'sport' incorporated into the stem for 'officiate' along with the AFFINITIVE format.

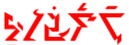
6.4.2 Examples of Incorporation and Format



Hëtiun-n ivigwařļokkai ţei.

PRL-ITV-FAC DYN-**[inc.stem: 'recreation.leisure']-IFL**-'ambulate'-NRM-DEL/M/CSL/CPN-TPP$_1$/7-IFL-**ISR** 1+ma-ACT

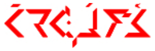
She and I are planning on taking a walk later on.



hremsoqaiţsurkoi

PPT-STA-**[inc.stem: 'value']-IFL**-'human.being'-INS-NRM-DEL/A/VAR/CST-MET$_1$/9-IFL-AMG/**ATH**

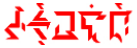
'purportedly by means of the value derived from all the varied attributes of humanity'



Xha üvôqalsâniú.

ua-OBL MNF-**[inc.stem: 'sport']-FML**-'official'-NRM/PRX/M/CSL/DCT-AGC$_2$/5-FML-FNC/**AFI**

They are a group of sports officiators.



/q^{h}ûl-lyai'svukšei'arpîptó'ks

'...being hard to believe, after allegedly trying to go back to repeatedly inspiring fear using rag-tag groups of suspicious-looking clowns, despite resistance'

Cv = **q^h**, indicating ALLEGATIVE sanction plus REPETITIVE phase
VL = **û**, indicating RESISTIVE valence
Cs = **l-ly**, indicating REGRESSIVE aspect
Vr = **ai'**, indicating DYNAMIC function plus Pattern 1, Stem 2 for the main root
Cx = sv, indicating the incorporated root: 'fear'
Vp = u, indicating INFORMAL designation plus Pattern 3, Stem 1 for the incorporated root
Cr = **kš**, indicating the main root: 'fool/clown'
Vc = **ei'a**, indicating POSTCURSIVE case
Ca = **rp**, indicating NORMAL essence, DELIMITIVE extension, UNBOUNDED perspective, AGGREGATIVE configuration, and VARIATIVE affiliation
Vx + Cs = **îpt-**, the GENUINENESS/VERACITY suffix in 4th degree, indicating a suspicious-looking nature
Vf = o, indicating SCHEMATIC format and EXISTENTIAL context
Cb = **'ks**, indicating SKEPTICAL bias
tone = rising, indicating INEFFECTUAL version
stress = ultimate, indicating FORMAL designation for the main root

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Ithkuil: A Philosophical Design for a Hypothetical Language

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Chapter 7: Suffixes

7.1 VxC Suffixes
7.2 Suffix-Types
7.3 Special Use of V_3C Suffixes
7.4 List of Suffixes

As we have seen in previous chapters, Ithkuil, like most languages, employs affixes (including both prefixes, suffixes, and infixes) in its morphology. However, one type of affix to the formative, the **Vx+C** suffix from Slot XI, operates in a manner warranting separate analysis. This chapter describes the morpho-phonological structure of these **Vx+C** suffixes (how they are formed from consonants and vowels), as well as their function.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
((Cv	VL)	Cg/Cs)	**Vr**	(Cx/Cv	Vp/VL)	**Cr**	**Vc**	Ci +Vi	**Ca**	VxC	(Vf	(’Cb))	**[tone]**	**[stress]**
Phase + Sanction (+ Illocution)	Valence	Validation OR Aspect	Pattern + Stem + Function	Incorp.Root OR Phase + Sanction (+ Illocution)	Pattern + Stem + Designation of Incorp. Root OR Valence	Root	Case	Illocution + Mood + Polarity	Essence + Extension + Perspective + Configuration + Affiliation	**Deriv. Suffix**	Context + Format	Bias	Version	Designation + Relation

7.1 VxC SUFFIXES

All Ithkuil affixes we have analyzed up to this point, whether prefixes or infixes, have consisted of either a single vocalic form (i.e., a single vowel, a diphthong, or a dyssyllabic vocalic conjunct), or a single consonantal form (i.e., a single consonant, a geminated consonant, or a consonant cluster), each of which has been invariable in its form. Furthermore, we have found that only one such affix can occupy its given slot in the formative’s structure.

However, the **VxC** suffix from Slot XI is different in three respects: (1) it is comprised of both a vowel form and a consonantal form, (2) the vocalic portion of the suffix can mutate, and (3) more than one **VxC** suffix can occupy Slot XI in the formative (i.e., **VxC** suffixes can be strung together sequentially one after the other).

7.1.1 Mutation of the Vowel Vx

While the consonantal portion of the suffix, **C**, is always invariable, the vocalic portion **Vx** mutates depending on two morphological factors known as **degree** and **suffix-type**. The nine different degrees will be discussed in detail in the next section below. As for suffix-type, every consonantal-based **Vx+C** suffix falls into one of three types, which determine what vowel or vowels will come before the invariable consonant **C**. The three suffix-types are labelled $\mathbf{V_1}$, $\mathbf{V_2}$, and $\mathbf{V_3}$, in reference to the vowel portion of the suffix.

7.1.2 Degree And Degree-Shifting

In addition to the three suffix-types, the vowel(s) associated with suffixes are also determined by degree. There are nine degrees, each of which has three associated vowel infixes corresponding to the three suffix-types. Table 24 below shows the vowel(s) associated with each suffix-type.

Table 24: Vocalic Infixes for Consonantal Suffixes by Suffix Type

	Suffix: -V_1C	Suffix Type 2: -V_2C	Suffix Type 3: -V_3C
Degree 1	**-iC**	**-iuC / -uaC**	**-ieC**
Degree 2	**-öC**	**-auC /-oaC**	**-iöC**
Degree 3	**-eC**	**-êC**	**-ioC**
Degree 4	**-îC / -uëC**	**-euC / -oeC**	**-oiC / -öaC**
Degree 5	**-(a)C**	**-âC**	**-üaC / -uìC / -iùC**
Degree 6	**-ûC / -iëC**	**-eiC / -eoC**	**-ouC / -öeC**
Degree 7	**-oC**	**-ôC**	**-uoC**
Degree 8	**-üC**	**-aiC / -eaC**	**-uöC**
Degree 9	**-uC**	**-iaC / -uiC**	**-ueC**

Applying the above rules to three example suffixes we can see in Table 25 below how these suffixes would actually appear in conjunction with the word **eqal** *'person'* :

TABLE 25: Example of Application of Suffixes to a Stem

	Suffix: -V_1k	Suffix Type 2: -V_2k	Suffix Type 3: -V_3k
Degree 1	**eqalik**	**eqaliuk / eqaluak**	**eqaliek**
Degree 2	**eqalök**	**eqalauk /eqaloak**	**eqaliök**
Degree 3	**eqalek**	**eqalêk**	**eqaliok**
Degree 4	**eqalîk / eqaluëk**	**eqaleuk / eqaloek**	**eqaloik / eqalöak**
Degree 5	**eqalak**	**eqalâk**	**eqalüak / eqaluìk / eqaliùk**
Degree 6	**eqalûk / eqaliëk**	**eqaleik / eqaleok**	**eqalouk / eqalöek**
Degree 7	**eqalok**	**eqalôk**	**eqaluok**
Degree 8	**eqalük**	**eqalaik / eqaleak**	**eqaluök**
Degree 9	**eqaluk**	**eqaliak / eqaluik**	**eqaluek**

As for the morpho-syntactic function of Degree, it is used in Ithkuil to create a gradient system for all consonantal suffixes, which generally indicates the degree to which the semantic concept underlying the particular suffix applies to the particular stem. This gradient usually extends from zero-degree (i.e., the particular concept or quality is absent or minimal) to a maximal degree (i.e., the particular concept or quality is present in totality). We will see in the tables of suffixes in Section 7.4 how this gradient system is used systematically in many dynamic semantic contexts. As a preview we can illustrate the meanings associated with the nine degrees for the suffix **-V_1d**.

Degree	Suffix	Meaning
1	**-id**	wholly lacking in / a complete absence of / not at all
2	**-öd**	way too little / totally insufficient(ly) / not anywhere enough
3	**-ed**	not enough / insufficient(ly) / under-[+verb]
4	**-îd**	not quite enough / somewhat insufficient(ly) / slightly under-[+verb]
5	**-ad**	enough (of) / sufficient(ly)
6	**-ûd**	a little too (much) / more than needed / slightly over-[+verb]
7	**-od**	too / too much / over-[+verb]
8	**-üd**	way too much / totally over-[+verb]
9	**-ud**	nothing but / to the exclusion of all else

There are approximatey 200 different consonantal suffix categories, each of which divides into the nine degrees discussed above to render over 1800 distinct suffixes. Each degree of a suffix has a distinct meaning, often representing a point along a continuum in terms of how much or how little the underlying semantic sense of the suffix category is being manifested by the particular formative.

It is important to remember that, since all morpho-semantic stems are both nominal and verbal in meaning, all suffixes to a stem have both a nominal and a verbal meaning. Therefore, the choice whether to translate the suffixes below into their nominal or verbal meaning is entirely dependent on the morpho-syntactical structure of the word within the context of its use in a phrase or sentence as a whole.

7.1.3 Notational Scheme

For convenience' sake, when referring to a particular suffix of specific type and degree, we will use the notation in the section above, utilizing a V for the variable vocalic component, a subscript 1, 2, or 3 indicating the suffix-type, followed by a slash and a number indicating the degree. Thus, the suffix **-nt** of Type 1 and 4th degree will be written **-V_1nt/4**, while the suffix **-r** of Type 3 and 8th degree will be written **-V_3r/8**, and so forth.

7.2 SUFFIX-TYPES

Each suffix category comes in three types, numbered 1, 2, and 3, indicated by variances in the initial vocalic component of the suffix. Use of the Type 1 version of a suffix caries a mere circumstantial meaning applicable to the context at hand in a subjectively incidental, happenstance, temporary, or informal manner, whereas the Type 2 version of a suffix implies a derivational meaning which can entail lexical differences when translating into English.

For example, the Type 1 suffix **-up**, i.e., **-V_1p/9**, and its Type 2 counterpart **-uip** , i.e., **-V_2p/9**, which both mean 'exactly similar to…/identical…,' the difference in usage being that the Type 1 suffix conveys merely a circumstantial or incidental similarity, while the Type 2 suffix implies that the similarity is an integral aspect of the word. In English, such a distinction would most likely be conveyed by using a different word. For example, note the difference when we add these two suffixes to the Ithkuil word **eqal** 'person': **eqalup** means 'identical-looking person,' whereas **eqaluip** means 'twin.' In this way, we can say that the suffix **-Vp** with Type 1 vocalic infixes conveys a circumstantial application of its meaning to a stem, while with Type 2 vocalic infixes, it conveys a derivational application of its meaning (i.e., wholly new concepts or words are derived from the stem).

As for Type 3 suffixes, these are used in circumstances where the meaning of the suffix is meant to be applied not to the formative itself, but rather to the immediately adjacent suffix. This is somewhat analogous to the way that adverbs can be used to modify descriptive adjectives in English. For example, in the phrase *suddenly blue sky*, it is the blueness that is sudden, not the sky. In Ithkuil, Type 3 suffixes modify another suffix (usually the one following, unless there are only two suffixes on the stem, in which case the suffix order is irrelevant); this is done by using Type 3 vocalic infixes. For example, the suffix **-Vd/5**, which means 'enough / sufficient(ly),' can be used both circumstantially (using Type 1 infixes) and derivationally (using Type 2 infixes) to modify a stem, or can be used to modify only the adjacent suffix (using Type 3 infixes). Such suffixes must immediately precede the suffix they are modifying, unless they are in word-final position, in which case they modify the immediately preceding suffix. This is illustrated below:

> **eqalad**: 'a sufficient person' (i.e., one able to perform the task at hand)
> **eqalâd**: 'a recruit' (i.e., one able to meet performance or entry requirements)
> **eqalüadûx**: 'a sufficiently large person' (where suffix **-V_1x/6** = 'large')

7.2.1 Multiple Suffixation and Ordering of Suffixes

When adding two or more suffixes to a stem, the suffixes generally can be added to the stem in any order desired, with the exception of **V_3C** suffixes which modify an adjacent suffix. This latter type must precede the suffix it modifies, unless there are only two **VxC** suffixes to the word, in which case the order is irrelevant.

7.3 SPECIAL USE OF V_3C SUFFIXES

Note that when a Type 3 suffix appears alone in Slot XI, unaccompanied by another **VxC** suffix, it serves a different purpose than normal. Such lone Type 3 suffixes are used as "short-cut" ways of displaying a type of adunct we will discuss in Chapter 8, called a personal reference adjunct. In these cases, the consonant portion of the suffix, rather than repesenting its usual suffix category, instead corresponds to one of the numerous personal reference categories we will discuss in Chapter 8, while the vowel portion of the suffix, rather than corresponding to one of nine degrees, instead correponds to one of nine noun cases. The details for utilizing these special **V$_3$C** suffixes are discussed in Section 8.1.5.

7.4 LIST OF SUFFIXES

The 200 suffix categories are listed in the sections which follow, indicating the difference in meaning for each of the nine degrees. Recall that each of these suffixes may (theoretically) function as both Type 1 and Type 2 suffixes, the latter type often entailing a change of meaning or lexical shift when translating into English.

7.4.1 Demonstrative Suffixes

These suffixes correspond to various determiners and modifying adjectives in English having to do with denoting or identifying a noun within a larger context or discourse.

-kt	**DEF**	Degree Of Definiteness
Degree 1	any (number of) [random selection - NOT quantitative/partitive “any”]; in any manner	
Degree 2	almost any; in almost any (number of) way(s)	
Degree 3	some X or other; in some way or other	
Degree 4	some certain X ; in some certain way [identity unknown]	
Degree 5	this X or that; a certain X or more; in this way or that [identity almost known – choices limited]	
Degree 6	a certain / a particular; in a certain or particular way [identity ascertainable]	
Degree 7	presumably this/that; apparently this X ; in that way presumably [tentatively identified]	
Degree 8	this/that/said; in said manner/(in) that way [identity known]	
Degree 9	at hand/under discussion/this one now/instant; in this manner [identity = present context]	

-q’	**DSR**	Degree Of Discretion
Degree 1	announced/advertised/heralded; w/ public disclosure	
Degree 2	open & well-known; with full public knowledge	
Degree 3	open/public; for all to see/publicly/openly	
Degree 4	shown, open, or available by request/ by request	
Degree 5	semi-public(ly), exclusive(ly)	
Degree 6	own/personal; personally	
Degree 7	own private; privately	
Degree 8	secret; secretly	
Degree 9	confidential/classified	

-q^h	**INL**	Degree Of Inclusion
Degree 1	not a(ny), not one, no X whatsoever, none of X; in no such manner	
Degree 2	hardly any, barely any X; in hardly any such manner	
Degree 3	some few/a few certain … ; in a few certain ways	
Degree 4	some (of)/certain . . .; in certain ways	
Degree 5	several / more than a few / various / in various ways / in several different ways	
Degree 6	a significant portion of/a fair number of; in a fair number of ways	
Degree 7	most/in most ways	
Degree 8	almost every; in almost every way	
Degree 9	each/every; in each way	

-rţ / -ţr	**EXT**	Exactness of Identity / Identity As a Referent Or Standard
Degree 1	nothing like that X; nothing like that ; in no way similar	
Degree 2	somewhat like that X; somewhat so	
Degree 3	nearly or almost that X; nearly or almost so	
Degree 4	just about . . . / for all intents and purposes	
Degree 5	kind of / type of / this sort of; typically	
Degree 6	such (a); in such a manner	
Degree 7	clear (case of); clearly / certainly / indeed[in negative sentences = no way / at all]	
Degree 8	just like that; just so, thus(ly)	
Degree 9	the exact X / the very (one); exactly thus / exactly so	

-ňs	**FAM**	Degree Of Familiarity
Degree 1	unknowable / alien; unable to even try X-ing	
Degree 2	totally unfamiliar; totally unaccustomed to X-ing	
Degree 3	unfamiliar; unaccustomed to X-ing	
Degree 4	somewhat unfamiliar; somewhat unaccustomed to X-ing	
Degree 5	only just (recently) familiar; only just recently familiar to X-ing	
Degree 6	somewhat familiar; somewhat accustomed to X-ing	
Degree 7	familiar/known; accustomed to X-ing	
Degree 8	well-known / utterly familiar with / ingrained; inherently accustomed or used to X-ing	
Degree 9	intimate with; intimately involved with / intimately accustomed to	

-p	**SIM**	Degree Of Similarity
Degree 1	opposite; as different as possible / at the other extreme	
Degree 2	completely different/dissimilar; in a totally different or dissimilar way	
Degree 3	rather different / barely similar / almost completely different or dissimilar; in an almost completely different way	
Degree 4	other [=different]; in another [=different] way	
Degree 5	somewhat different, only superficially similar; somewhat differently	
Degree 6	similar in the ways that count/similar down deep, some sort of X; similarly at deep level	
Degree 7	(somewhat) similar, only superficially different, sort of like, something like, X-like; similarly	
Degree 8	very similar; very similarly	
Degree 9	[exactly the] same, indistinguishable from; in the [exactly] same way	

7.4.2 Deictic Suffixes

Deictic suffixes refer to the grammatical process of **deixis**, the act of pointing to or pointing out. The suffixes correspond to the different variants of the concepts of ‘here’ and ‘there.’ In Ithkuil, distinctions are made in these suffixes as to whether a referent is near the speaker, near the listener, distant from both, whether it is observable or accessible, and in some case, whether it is alienable or inalienable (i.e., whether the entity can be separated from the associated person).

-č’	**DEX**	Deixis Categories
Degree 1	yonder / way over there somewhere / a long way away (not near anyone) [inaccessible or unobservable]	
Degree 2	over there somewhere (by third party) [inaccessible or observable]	
Degree 3	there somewhere (by listener) [inaccessible or observable]	
Degree 4	here somewhere (by speaker] [inaccessible or observable]	
Degree 5	here (by speaker and accessible]	
Degree 6	here with us (by speaker and listener and accessible]	
Degree 7	there [by listener and accessible]	
Degree 8	there (by third party, but accessible to speaker and listener)	
Degree 9	yonder / way over there [not near any party but accessible]	

-č^h	**DXX**	Additional Deixis Categories
Degree 1	spread out/ everywhere / scattered yonder / all over out there [inaccessible]	
Degree 2	spread out/ everywhere / scattered all about listener / all over the place around listener [inaccessible]	
Degree 3	spread out/ everywhere / scattered all about speaker / all over the place / here and there [inaccessible]	
Degree 4	spread out/ everywhere / scattered all about speaker / all over / here & there [observable but inaccessible]	
Degree 5	spread out/ everywhere / scattered all throughout speaker / enveloping speaker [inalienable]	
Degree 6	spread out/ everywhere / scattered all throughout speaker / enveloping speaker [alienable]	
Degree 7	spread out/ everywhere / scattered all about speaker/all over the place / here and there [accessible]	
Degree 8	spread out/ everywhere / scattered all about listener / all over the place around listener [accessible]	

Degree 9	spread out/ everywhere / scattered yonder / all over out there [accessible]	

7.4.3 Sequential Suffixes

-nn	**SEQ**	Numerical Sequence
Degree 1	first / initial; first(ly) / first of all	
Degree 2	second; secondly	
Degree 3	third; thirdly	
Degree 4	still near the beginning / not yet halfway	
Degree 5	the middle one, in between (sequentially)/ just about halfway there	
Degree 6	nearing the end	
Degree 7	third from last; antepenultimately	
Degree 8	next to last; penultimately	
Degree 9	last / final; last(ly) / finally (in terms of sequence)	

-nš / -šn	**SQT**	Sequence Relative to Present Context
Degree 1	immediately beforehand / first	
Degree 2	one before preceding	
Degree 3	the former; primarily	
Degree 4	two before preceding	
Degree 5	current/at hand; now /currently / at the moment [in sequence of events]	
Degree 6	second one after next	
Degree 7	the latter; secondarily	
Degree 8	one after next	
Degree 9	next / following; then / next	

-c'	**SQC**	Sequence of Cause and Effect
Degree 1	originating; originally / in the first place / initially / at the outset	
Degree 2	preliminary; preliminarily	
Degree 3	preparatory / in preparation for / getting ready to	
Degree 4	awaited; waiting to/ waiting for [focus on imminency or sequential position, NOT on anticipation]	
Degree 5	precursor to; but just beforehand	
Degree 6	based on the preceding and setting the stage for what follows	
Degree 7	eventual / at last; at last / finally (result)	
Degree 8	following /...which follows; then subsequent to that / following that...	
Degree 9	subsequent / consequent; then / so / thus / therefore	

7.4.4 Coordinative Suffixes

-ň	**COO**	Adjunctive Coordination
Degree 1	in conjunction with / combined with / including X	
Degree 2	and / also / additionally/ furthermore/ moreover/ what's more	
Degree 3	. . . and so forth / and so on / and all that/ and whatever else	
Degree 4	and at the same time / and simultaneously	
Degree 5	and [all in a series]	
Degree 6	or [potentially inclusive] = and/or	
Degree 7	either . . . or [exclusive or] / or else	
Degree 8	. . . or something else / or whatever / or whatever else	
Degree 9	either . . . or [exclusive or in a series]	

-ňň	**CTR**	Contrastive Coordination
Degree 1	still / nevertheless / however — (despite seemingly inherent conflict or contradiction)	
Degree 2	besides / not just . . . but also / in addition to X… also	
Degree 3	even / or even / … still [e.g., thicker still]	
Degree 4	or [= otherwise]	
Degree 5	as opposed to / but not	
Degree 6	but [qualifying]	
Degree 7	however / on the other hand — (simple difference in expected outcome, no inherent conflict)	
Degree 8	but (rather) [= substitute]	
Degree 9	just in case / should the need arise	

-nz / -zn	**DST**	Distributive Coordination
Degree 1	applying to each equally [unfairly]	
Degree 2	applied selectively by decision/preference [unfairly]	
Degree 3	respectively (=to each) but in differing amounts [unfairly]	
Degree 4	selectively at random [unfairly]	
Degree 5	respectively [= applied in the sequentially spoken order]	
Degree 6	selectively at random [fairly]	
Degree 7	respectively (=to each) but in differing amounts [fairly]	
Degree 8	applied selectively by decision/calculation [fairly]	
Degree 9	applying to each equally [fairly]	

7.4.5 Temporal Suffixes

-tʰ	**TPI**	Impact or Duration Over Time
Degree 1	immediate / at this instant / for this moment; momentary	
Degree 2	temporary / for right now / for the moment; temporarily / in the meantime [duration of context. recent]	
Degree 3	short term/for now ; in the short term/for now / / for the immediate future [hours to days]	
Degree 4	for the meantime / for the meanwhile [days to weeks to months]	
Degree 5	for a while / for some time to come [months to several years]	
Degree 6	for the foreseeable future [years to decades]	
Degree 7	long term/in the long run; over the course of time [over the course of a lifetime, decades to centuries]	
Degree 8	through the ages / over the course of the ages [centuries to millenia]; permanent	
Degree 9	ever-present / eternal / constant / incessant / neverending; from now on / eternally / all the time / for all time	

-rč	**TPD**	Temporary Duration
Degree 1	brief, momentary (lasting a few seconds)	
Degree 2	for a "minute"	
Degree 3	for a few minutes (e.g., "while you wait")	
Degree 4	for a little while (i.e., up to an hour approximately)	
Degree 5	for a while (i.e., from one to several hours)	
Degree 6	for today (i.e., from several hours to 24 hours approximately)	
Degree 7	for one or two days	
Degree 8	from two to four days	
Degree 9	up to a week	

-ll	**FRQ**	Degree Of Frequency
Degree 1	never	
Degree 2	rare / hardly ever / once in a great while; rarely / almost unheard of	
Degree 3	infrequent; seldom / infrequently	
Degree 4	now and then / from time to time / off and on / every so often / now and again occasionally / sometimes	
Degree 5	frequent; frequently / often	
Degree 6	usual; usually / customarily / generally	
Degree 7	almost always / rarely fail to / routinely	
Degree 8	ever-faithful / unwavering; always / every time / without fail / like clockwork / never fail to	
Degree 9	constant / continuous; constantly / continuously / all the time	

Degree 9	constant / continuous; constantly / continuously / all the time

-z	TPR	Temporal Placement/Reaction/Viewpoint
Degree 1	wistfully looking back / in the (good) old days [with longing]	
Degree 2	in hindsight / looking back	
Degree 3	upon further consideration/upon reflection	
Degree 4	initial; at first/initially / at first blush / at first glance	
Degree 5	now that the moment has come / now that the time is here / now that the deed or event is at hand	
Degree 6	any moment now ; on the verge of; just about to	
Degree 7	imminent(ly) ; very soon	
Degree 8	soon [w/ anticipation]	
Degree 9	someday. . . / one day [with longing]	

-kk	TPP	Temporal Position Relative to Present
Degree 1	in the remote past, once upon a time	
Degree 2	past/former/previous; once [e.g., I was young once], a long time ago	
Degree 3	recent; recently	
Degree 4	. . . just past / just (happened)	
Degree 5	present/current/present day; now / at present / presently / currently	
Degree 6	imminent; just about to / about to / on the verge of	
Degree 7	forthcoming / soon to arrive; soon	
Degree 8	future / -- to be / --to come / eventual(ly); someday...	
Degree 9	in the remote future / far in the future / long after we're gone	

-pţ	ATC	Degree Of Anticipation
Degree 1	long-awaited / long looked for	
Degree 2	eagerly awaited; can't wait for / dying to	
Degree 3	anticipated / awaited; in anticipation of / look forward to	
Degree 4	up for / up to	
Degree 5	await / wait to / wait for / waiting to	
Degree 6	ambivalent about ; could take or leave it	
Degree 7	not looking forward to	
Degree 8	dreaded; dread X-ing	
Degree 9	long-dreaded; dread the day when	

-nž / -žn	LAT	Degree Of Lateness/Earliness
Degree 1	way too early / way too soon	
Degree 2	too early / too soon	
Degree 3	a little early / a bit soon	
Degree 4	almost late / not a moment too soon	
Degree 5	just in time / sharp / on the dot	
Degree 6	a little late	
Degree 7	late	
Degree 8	too late	
Degree 9	way too late	

-nt / -tn	ITN	Degree Of Iteration
Degree 1	just once / once only	
Degree 2	again / once more / one more time / re-	
Degree 3	again and again / keep X-ing over and over [focus on habit, not periodicity]	
Degree 4	again and again / keep X-ing over and over [focus on periodicity, not habit]	
Degree 5	irregular, unpredictable ; at irregular or unpredictable intervals	
Degree 6	[cyclic] return of... / ...once again; return to / …back again [e.g., summer's back]	
Degree 7	intermittent; intermittently / at regular intervals	
Degree 8	repetitive / repeating; repeatedly	
Degree 9	constantly cycling or repeating / continuously or perpetually repeating / constant, eternal, perpetual repetition of	

-kţ	RPN	Pattern of Spatio-Temporal Repetition or Distribution of Set Members
Degree 1	slow-paced repetition at regular intervals	
Degree 2	slow-paced repetition at irregular intervals	
Degree 3	slow-paced repetition at mixed intervals	
Degree 4	mid-paced repetition at irregular intervals	
Degree 5	mid-paced repetition at regular intervals	
Degree 6	mid-paced repetition at mixed intervals	
Degree 7	fast-paced repetition at mixed intervals	
Degree 8	fast-paced repetition at irregular intervals	
Degree 9	fast-paced repetition at regular intervals	

-rl	CAL	Calendrical Sequencing (used with numerical stems to indicate calendrical concepts)
Degree 1	[sequential number +] day of the week	
Degree 2	[sequential number +] day of the month	
Degree 3	[sequential number +] day of the year	
Degree 4	[sequential number +] week of the month	
Degree 5	[sequential number +] month of the year	
Degree 6	[sequential number +] year	
Degree 7	[sequential number +] decade of the century	
Degree 8	[sequential number +] century	
Degree 9	[sequential number +] millenium	

The V_1 value of these suffixes merely indicates sequential position on the calendar, e.g., **llalirl** *'the first day of the week,'* whereas V_2 values give the names of the days of the weeks, days of the month, months of the year, etc., e.g., **llaluarl** *'Sunday,'* **ksaluarl** *'Monday,'* **ksalârl** *'February,'* **llalökearl** *'the 21st Century',* **mřalik (ňial) xmalukeorl** *'the year 1999.'*

Note: the CAL suffix inherently conveys Functional (FNC) Context, since calendrical notions are, of course, societal conventions as opposed to being natural ontological concepts. Therefore, for formatives carrying the CAL suffix it is not necessary to inflect for FNC Context.

7.4.6 Quantifying Suffixes

-lz / -zl	DGR	Exactness of Degree
Degree 1	unknowable degree or amount of	
Degree 2	unknown degree or amount of	
Degree 3	almost impossible to determine degree of	
Degree 4	nowhere near the desired degree of	
Degree 5	hard to pinpoint / hard to determine / difficult to determine	
Degree 6	fluctuating, ever-changing (amount of); to changing/fluctuating degree or extent of	
Degree 7	vaguely around / vaguely in the range of / somewhere around / loosely in the vicinity of	
Degree 8	approximate(ly) / somewhere around / just about; or something like that / …or so	
Degree 9	exact/specific; exactly / specifically / on the dot / sharp / to the letter	

-ss	PTW	Contiguous Portion of the Whole
Degree 1	no amount of / none (of)	
Degree 2	a very few / a tiny amount of / a tiny number of; only a tiny bit / a tiny bit	
Degree 3	few / a little / a bit; a little / a bit	
Degree 4	some, any [= some of] / some of or any of the / a portion; partially / to some extent	
Degree 5	a fair number of / a fair amount of / pretty (+adj.) / fairly (+adj.) / rather / somewhat; more or less / to a fair extent	
Degree 6	much / many / (such) a lot of / very / quite (a); quite; a lot / very much / to a large extent	
Degree 7	a whole lot of / a verly large amount or number of / immensely, in an incredible amount / so much…; so	
Degree 8	most of / mostly	

Degree 8	most of / mostly
Degree 9	every / all (of)/whole; entirely/in its entirety

-ns / -sn	PTT	Non-Contiguous (i.e., Intermixed) Portion of the Whole
Degree 1	no amount of / none (of)	
Degree 2	a very few / a tiny amount of / a tiny number of; only a tiny bit / a tiny bit	
Degree 3	few /a little / a bit; a little / a bit	
Degree 4	some, any [= some of] / some of or any of the / a portion; partially / to some extent	
Degree 5	a fair number of / a fair amount of / pretty (+adj.) / fairly (+adj.) / rather / somewhat; more or less / to a fair extent	
Degree 6	much / many / (such) a lot of / very / quite (a); quite /; a lot / very much / to a large extent	
Degree 7	a whole lot of / a very large amount or number of / immensely, in an incredible amount / so much…; so	
Degree 8	most of / mostly	
Degree 9	every / all (of) / whole; entirely / in its entirety	

-mt / -tm	CNM	Type of Container/Packaging/Conveyance/Holder
Degree 1	jar/pot of X [storage + containment]	
Degree 2	dispensor-type container/package, e.g., tube, barrel, bottle for multiple use	
Degree 3	can/tin/bottle/sealed pouch [= storage + packaging + protection/preservation]	
Degree 4	carton/box/basket [= temporary containment]	
Degree 5	natural or generic mass containment/packaging/holder (e.g., a loaf of bread, a lump of clay)	
Degree 6	satchel, pack of [= for personal conveyance/moving]	
Degree 7	pile of, load of [= in context of conveyance/moving or bulk storage]	
Degree 8	X-ful of [+ Partitive], e.g., a roomful of clowns, a skyful of clouds, a treeful of leaves, a spoonful	
Degree 9	embodiment/manifestation of abstract essence, e.g., a life form [= an embodiment of life]	

-d	SUF	Degree Of Sufficiency
Degree 1	none at all; not…at all	
Degree 2	way too little / woefully insufficient / way too few ; not...anywhere enough / totally under-[+verb]	
Degree 3	not enough / insufficient / too few ; not...enough / insufficiently / under-[+verb]	
Degree 4	not quite enough / slightly insufficient; not...quite enough / a bit insufficiently / slightly under-[+verb]	
Degree 5	enough (of) / sufficient; enough / sufficiently	
Degree 6	a little too / a little too much; a little too much / slightly over- [+verb]	
Degree 7	too / toomuch; too much / too many / over- [+verb]	
Degree 8	way too / way too much; way too much / totally over- [+verb]	
Degree 9	inundated with; to the exclusion of all else / to the point that X overwhelms or takes over	

-b	EXN	Degree or Extent
Degree 1	none (at all); to no extent at all	
Degree 2	tiniest part of / a bit of; to smallest extent / hardly / barely	
Degree 3	only a part of / only some of; to some extent / partially / partly / somewhat	
Degree 4	less than usual / below normal; less so than usual/ to a lesser degree or extent than usual	
Degree 5	the normal, expected or usual amount (of)	
Degree 6	more than usual / above normal; more so than usual; to a greater degree or extent than normal	
Degree 7	way more than usual / way above normal or expected; to a much greater degree or extent than normal	
Degree 8	almost as much as possible / near(ly) maximum	
Degree 9	total, -ful; to greatest extent / maximum / maximal; maximally / at full capacity, e.g., She bought out the store.	

-rd / -dr	EXD	Dynamically Changing Degree or Extent
Degree 1	less and less / fewer and fewer / ongoing decrease in; decreasingly	
Degree 2	a lot fewer / a lot less (of); a lot less	
Degree 3	fewer / less (of); less	
Degree 4	a little less (of) / a bit less (of); a little less / a bit less	
Degree 5	a fluctuating amount or degree of; to a fluctuating degree or extent	
Degree 6	a little more (of) / a bit more (of); a little more / a bit more	
Degree 7	more (of); more	
Degree 8	a lot more (of); a lot more	
Degree 9	more and more / continuing increase in / increasingly more / ever-increasing	

This suffix is used with all vector-like or gradient concepts. When used with the COMPLETIVE version, degrees 1 and 9 imply attainment of a change in state, e.g., *sleepiness* → *sleep*.

7.4.7 Modulative Suffixes

-zb	RCO	Recoil in place (spring back; snap back; fall back into place)
-zg	TFI	Back & forth; to & fro in place (e.g., pendulum, wagging tail)
-žd	TFV	Back & forth over linear vector (e.g., snake-like; zig-zag)
-zd	CRI	Cycle or circular motion in place (spin, revolve)
-žb	CRV	Cycle or circular motion over linear vector (e.g., train wheels, bike wheels)
-žg	MDL	Random pattern of modulation (unpredictable/irregular movement pattern)

These suffixes operate in conjunction with Phase (see Sec. 5.3) to describe contexts involving recoil, spring motion, oscillative, cyclic, reflective or vibrative motion, using the following degrees:

Degree 1	not enough
Degree 2	hardly at all
Degree 3	to a small degree
Degree 4	to a less than normal degree
Degree 5	to the normal / standard / usual degree
Degree 6	to a greater than normal degree
Degree 7	to a large degree
Degree 8	to a very large degree
Degree 9	too much / overly

-g	FLS	Degree of Fluctuation/Stability
Degree 1	inherently and consistently unstable and random to a high degree	
Degree 2	highly variable/random fluctuation or instability	
Degree 3	moderately variable/random fluctuation or instability	
Degree 4	increasing fluctuation or destabilization in pattern	
Degree 5	tending toward fluctuations and periods of instability	
Degree 6	decreasing fluctuation or instability in pattern = increasing stability	
Degree 7	moderately stable and lacking in fluctuations	
Degree 8	complete lack of fluctuation or instability; highly stable	
Degree 9	inherently and consistently stable	

-f	ICR	Increase
-ft	DCR	Decrease
-pf	ICD	Increase then Decrease
-kf	DCI	Decrease then Increase
-qţ	IDR	Random/Varying Increases and Decreases

Used with the following degrees, the above five suffixes operate to expand Phase into showing increases or decreases (or wavering) of intensity of an action during its duration.

Degree 1	so slowly as to seem immovable
Degree 2	very slowly
Degree 3	slowly
Degree 4	somewhat slower than normal
Degree 5	normal/usual/standard speed
Degree 6	somewhat faster than normal
Degree 7	fast/quickly

Degree 8	very rapidly
Degree 9	so rapidly as to be unable to follow

-fs	**MVT**	Degree of Stillness/Movement
Degree 1	unmovable – integrated	
Degree 2	unmovable due to mass	
Degree 3	not easily moved	
Degree 4	inclined to stillness	
Degree 5	holding still	
Degree 6	moving around slightly, stirring	
Degree 7	moving around in one place	
Degree 8	moving around, agitated	
Degree 9	highly agitated, unable to keep still	

7.4.8 Qualifying Suffixes

-x	**SIZ**	Degree of Size
Degree 1	too small	
Degree 2	very small/ very little/ miniscule/ tiny/ itty-bitty;in a very small manner; barely/hardly	
Degree 3	small/little	
Degree 4	a little on the small size / undersized / petite	
Degree 5	a little on the large size / oversized / jumbo	
Degree 6	big/large; in a large manner	
Degree 7	very big/very large; in a very large manner	
Degree 8	enormous(ly) / huge(ly) / humoungous(ly) / gigantic(ally)	
Degree 9	too big / too large / too huge; in too large a manner	

-xh	**SCO**	Dynamic Change of Size
Degree 1	smallest single manifestation of / particle of	
Degree 2	runaway shrinkage of / rapid disappearance or diminishment of	
Degree 3	solitary / only / sole / lone / unaccompanied; alone / by -self / on his own / unaccompanied / solely	
Degree 4	decreasing / de-escalating / shrinking	
Degree 5	compact/concentrated; in efficient or compact way [e.g., *canyon → gorge*]	
Degree 6	expanded/enhanced; in expanded or enhanced way [e.g., *canyon → rift valley*]	
Degree 7	growing, increasing, escalating	
Degree 8	runaway / runaway growth, increase or expansion of	
Degree 9	synergistic expansion e.g., hit (+ RCP valence) → fight	

-ç	**AFT**	Degree of Affect
Degree 1	cute/darling / in a cute or darling manner	
Degree 2	too cute / schmaltzy / in a maudlin way	
Degree 3	kitschy / quaint(ly)	
Degree 4	dear, endearing(ly)	
Degree 5	lovely / elegant	
Degree 6	esteemed	
Degree 7	imperious / royal / most high / most excellent / revered	
Degree 8	too grand / too imperious	
Degree 9	great / grand; in a great / grand / grandiose manner	

-č	**QUA**	Degree of Quality, Effectiveness or Adequacy
Degree 1	too poor(ly); too badly	
Degree 2	very bad(ly) / very poor(ly) / very inadequate(ly) / intolerable / intolerably / terrible / terribly	
Degree 3	bad / poor / inadequate; badly / poorly / inadequately / wanting / lacking	
Degree 4	not-so-good / could be better; somewhat poor(ly) or bad(ly) / somewhat wanting or lacking / below-average	
Degree 5	not-so-bad / average; could be worse; so-so / somewhat well / OK, I guess / adequate(ly) / acceptably	
Degree 6	good/effective; well/effectively/ more than adequate / above-average	
Degree 7	very good / very effective(ly) / very well	
Degree 8	excellent(ly) / superb(ly) / outstanding(ly)	
Degree 9	astounding(ly) / amazing(ly) great or well / unbelievably excellent / absolutely superb(ly) / unsurpassable(ly)	

-c	**UNQ**	Degree of Specialness or Uniqueness
Degree 1	vulgar, trashy, too cheap / in a vulgar or trashy manner	
Degree 2	cheap, tasteless, gaudy, gauche / in a cheap, gaudy, gauche or tasteless manner	
Degree 3	run of the mill / unexceptional / average / commonplace / ordinary; in a commonplace or unexceptional manner	
Degree 4	somewhat ordinary / somewhat common(place)	
Degree 5	somewhat special / somewhat out of the ordinary / interesting(ly) / intriguing(ly) / eye-catching / appealing(ly)	
Degree 6	special; epecially	
Degree 7	extraordinary / highly unusual; extraordinarily	
Degree 8	(one and) only/unique; in the only way / uniquely / unparallelled	
Degree 9	marvelous / wonderful / wondrous / awesome / awe-inspiring	

-rň	**IPT**	Degree of Importance/Impact/Signficance
Degree 1	utterly unimportant, insignficant, unnecessary, irrelevant	
Degree 2	hardly necessary, seemingly unimportant, essentially insignificant, essentially irrelevant	
Degree 3	third-string / no remaining alternative but X	
Degree 4	back-up / understudy / second-string	
Degree 5	secondary	
Degree 6	fairly significant, somewhat important	
Degree 7	important/ significant / considerable	
Degree 8	primary / foremost / very significant	
Degree 9	Indispensable/crucial/critical	

-kʰ	**CNQ**	Degree of Consequentiality, Finality or Irrevocability
Degree 1	inconsequential/sham/having no effect; like it didn't even happen/with no effect	
Degree 2	relatively inconsequential / having little effect / easily reversible or undone / to little effect / minor / to minor degree	
Degree 3	somewhat inconsequential/having only some effect/reparable/reversible/to some effect / somewhat minor	
Degree 4	not so minor / somwhat significant degree / reversible with effort / having a somewhat significant impact or effect	
Degree 5	consequential / having a fair effect / reversible only with concerted effort / to good effect	
Degree 6	Overall / signifcant degree of; all in all / for the most part/to great effect / on the whole	
Degree 7	virtually total/near total; nearly for good/almost completely	
Degree 8	utter / complete / total; altogether / completely / for good / utterly / irrevocably for all intents and purposes	
Degree 9	for all time / forever / finally	

-q	**NTR**	Degree of Notoriety, Acceptance, Respect, Honor
Degree 1	pariah-like / ostracized; in an alienating or self-ostracizing manner	
Degree 2	infamous; infamously	
Degree 3	frowned-upon / disapproved ; in a manner guaranteed to arouse disapproval	
Degree 4	tolerated; in a tolerated manner	
Degree 5	common / customary / expected / accepted; in an common, customary, expected, or accepted manner	
Degree 6	notorious(ly)	
Degree 7	well-known / well-liked / well thought of; in a totally appropriate way / in a manner befitting a gentleman or lady	
Degree 8	respected / honored; respectfully / honorably	
Degree 9	highly praised / highly honored / highly esteemed / highly respected / most excellent / most honorable	

-rg	**BEH**	Degree of Subjective Effect or Behavioral Appropriateness
Degree 1	grotesque gross nauseating sickening	

Degree 1	grotesque, gross, nauseating, sickening
Degree 2	repugnant, revolting, repulsive
Degree 3	despicable, deplorable, detestable
Degree 4	lurid, spectacle-inducing
Degree 5	offensive, ill-mannered, in poor taste
Degree 6	lewd
Degree 7	spectacular, showy, larger-than-life
Degree 8	well-mannered, polite
Degree 9	classy, dignified, in good taste

-xht	**APR** Degree of Contextual Appropriateness
Degree 1	contemptable(-ly) / utterly inappropriate(ly)
Degree 2	scandalous(ly) / trashy(-ly) / inappropriate(ly)
Degree 3	ill-mannered / boorish(ly) / improper(ly) / tasteless(ly)
Degree 4	eyebrow-raising / questionable(-ly)
Degree 5	somewhat improper(ly) / unorthodox(ically)
Degree 6	acceptable(-ly) / adequate(ly)
Degree 7	appropriate(ly) / proper(ly) / correct(ly)
Degree 8	utterly appropriate(ly), very proper(ly); strictly correct(ly)
Degree 9	stuffy / orthodox / old-fashioned; utterly predictable(ly)

-tļ	**HRC** Position on Social, Occupational, or (Para-) Military Hierarchy
Degree 1	bottom rung / the “dregs”
Degree 2	rank & file
Degree 3	lower echeleon
Degree 4	lower-mid
Degree 5	mid-level
Degree 6	upper mid
Degree 7	upper echeleon
Degree 8	senior
Degree 9	head / chief / top / executive

This suffix, for example, would be used to distinguish the names of the various ranks within a military or paramilitary organization such as *private, corporal, sergeant, lieutenant*, etc. all the way up to *general* and *supreme commander*.

-ż	**FRM** Degree of Formality
Degree 1	too casual / overly casual
Degree 2	very casual
Degree 3	casual
Degree 4	somewhat casual
Degree 5	neither casual nor formal
Degree 6	somewhat formal
Degree 7	formal
Degree 8	very formal
Degree 9	too formal / overly formal

-j	**TYP** Degree of Typicalness
Degree 1	unique / never-before-seen / one of a kind / shocking
Degree 2	original / avante-garde; surprising(ly) / innovative(ly)
Degree 3	atypical(ly) / unusual(ly)
Degree 4	somewhat atypical(ly) or unusual(ly)
Degree 5	garden variety / run-of-the-mill / typical(ly)
Degree 6	expected / common; in a commonplace manner
Degree 7	disappointingly typical; very typically
Degree 8	unoriginal / mundane; in an uninspired way
Degree 9	stereotyped / stereotypical(ly)

-ňx	**PTY** Degree of Prototypicalness
Degree 1	very dissimilar to prototype, very atypical member, closer to members of different set
Degree 2	dissimilar to prototype, atypical member
Degree 3	having noticeable dissimilarities from prototype
Degree 4	somewhat dissimilar to prototype
Degree 5	having unknown degree of closeness or similarity to prototype
Degree 6	adequately similar to prototype
Degree 7	as close to prototype as is typically found
Degree 8	as close to prototype as possible
Degree 9	prototype/archetype/model

-mž / -žm	**ITG** Degree of Intelligence Manifested
Degree 1	dumb / stupid / assinine; idiotic(ally) / moronic(ally)
Degree 2	foolhearty / foolish(ly)
Degree 3	ill-conceived(ly) / (in a) poorly thought out (way)
Degree 4	naïve(ly) / simplistic(ally)
Degree 5	well-intentioned but ill-conceived / reckless(ly); risky
Degree 6	well-reasoned / intelligent(ly)
Degree 7	innovative(ly) / daring [based on analysis and judgement]
Degree 8	ingenious / brilliant
Degree 9	wise(ly); [V2c’ = ‘philosophical(ly)]

-ļ	**MDN** Degree of Age or Modernity
Degree 1	prehistoric / proto-
Degree 2	ancient
Degree 3	old (first) / archaic
Degree 4	classic(al)
Degree 5	old-fashioned; in the old-fashioned way
Degree 6	“yesteryear”; in the era just passed; in the previous zeitgeist
Degree 7	modern, contemporary, present-day
Degree 8	innovative / trailblazing; innovatively, trailblazingly, cutting-edge
Degree 9	avant-garde

7.4.9 Modifying Suffixes

-r	**NA1**	Negation/affirmation of all morphological components
-l	**NA2**	Negation/affirmation of stem + affixes but not adjunct information
-ř	**NA3**	Negation/affirmation of all morphological components except Modality
-řř	**NA4**	Negation/affirmation of all but aspectual or Modality information

The above four suffixes are used to affirm or negate a formative. Because much of the information associated with an Ithkuil formative is carried in adjuncts, the above suffixes are used to indicate exactly which morpho-semantic information is being affirmed or negated. For example, in English the sentences *I don’t want to stop eating, I want to not stop eating, and I want to stop not eating* mean different things. The above four suffixes are used with the following degrees.

Degree 1	on the contrary…most cerainly does NOT/is NOT [absolute negation]; no X whatsoever; absolutely not = emphatic negation/denial
Degree 2	on the contrary…does NOT or is NOT [absolute negation contrary to expectation]
Degree 3	on the contrary…does NOT or is NOT [relative negation contrary to expectation]
Degree 4	no; not [absolute negation] = e.g., *I will not win the race (because I’m not in the race)*
Degree 5	no; not [relative negation] = e.g., *I will not win the race (although I am in the race)*
Degree 6	almost / near(ly)
Degree 7	hardly / barely
Degree 8	…does (too) / is (too) [= simple affirmation contrary to expectation]

Degree 9	…is indeed / does indeed / most certainly is / most certainly does [emphatic affirmation]

-rr	**PLV**	Polarity / Logical valence values
Degree 1	false/negative [bivalent polarity or logic]	
Degree 2	false/negative [trivalent polarity or logic]	
Degree 3	superpositional – neither true/positive nor false/negative	
Degree 4	unknown polarity or logical state/value [trivalent polarity or logic]	
Degree 5	neutral [trivalent polarity or logic]	
Degree 6	unknown polarity or logical state/value [bivalent polarity or logic]	
Degree 7	superpositional – both true/positive and false/negative	
Degree 8	true/positive [trivalent polarity or logic]	
Degree 9	true/positive [bivalent polarity or logic]	

-ţ	**DEV**	Degree of Development
Degree 1	reversal or undoing of process = ‘un-’ / ‘de-’ / ‘dis-’	
Degree 2	reversal/undoing of process in large chunks = ‘un-’ / ‘de-’ / ‘dis-’	
Degree 3	reversal little by little / a little at a time = entropic change in / slowly falling apart / unravelling	
Degree 4	moribund / stagnant; in a moribund or stagnant manner	
Degree 5	well-maintained / well-kept / “healthy”; keep X going / maintain X-ing	
Degree 6	one by one / one at a time / one after another	
Degree 7	little by little / a little at a time / bit by bit / a piece at a time	
Degree 8	by leaps and bounds / in large amounts at a time	
Degree 9	complete achievement now irreversible / set in stone	

-pt	**REA**	Degree of Genuineness or Veracity
Degree 1	real / actual / true / genuine; truly, genuinely, really, actually, indeed [affirmation contrary to suggestion otherwise]	
Degree 2	real / actual / true / genuine; truly, genuinely, really, actually, indeed	
Degree 3	apparent / seeming / looks like a; apparently / appears to have / seems to have	
Degree 4	suspicious-looking / ”fishy” seeming; presumably /allegedly / gives the appearance of having	
Degree 5	ersatz / facsimile; as an equivalent to	
Degree 6	substitute / replacement / proxy / fill-in / placeholder; as a substitue or proxy for	
Degree 7	fake / pretend / mock; pretend to, fake X-ing	
Degree 8	imaginary / unreal / made-up ; imagine X-ing, not really X-ing	
Degree 9	imaginary / unreal / made-up ; imagine X-ing, not really X-ing [contrary to suggestion otherwise]	

-rk / -kr	**SCS**	Degree of Success versus Failure
Degree 1	total failure in; completely fail to	
Degree 2	failed, would-be; unsuccessfully, fail to	
Degree 3	= INEFFECTUAL or INCOMPLETIVE version (see Sec. 5.8)	
Degree 4	certain to be a failed / certain to fail in	
Degree 5	marginally successful(ly) / barely, hardly [in terms of adequacy or success]	
Degree 6	certain to be a successful ; certain to succeed in	
Degree 7	= POSITIVE or EFFECTIVE version (see Sec. 5.8)	
Degree 8	successful(-ly completed); successfully	
Degree 9	overwhelmingly successful(ly)	

-v	**CAP**	Degree of Potential or Capability
Degree 1	utterly incapable / completely lacking in all necessary abilities or capacities	
Degree 2	underqualified; almost totally lacking in necessary abilities or capacities	
Degree 3	lacking in certain key capabilities; mostly inadequate to task	
Degree 4	possible but less than likely due to underdeveloped capabilities	
Degree 5	unknown if capable or not	
Degree 6	somewhat capable / has possible potential to perform	
Degree 7	sufficiently capable / adequate potential to perform	
Degree 8	fully capable; well within abilities	
Degree 9	overly qualified; more capable than necessary or required	

-çq	**PRB**	Degree of Probability or Likelihood
Degree 1	impossible / hopeless / lost cause	
Degree 2	almost no chance of / virtually impossible	
Degree 3	highly unlikely	
Degree 4	unlikely / improbable(ly)	
Degree 5	possible; possibly	
Degree 6	hopeful(ly)	
Degree 7	probable; probably	
Degree 8	highly probable / highly likely / certain to be a. . . certain to	
Degree 9	forgone conclusion that / in the can / done deal	

7.4.10 Adverbial Suffixes

-nţ / -ţn	**STR**	Degree of Physical Strength Possible or Used
Degree 1	barely / hardly / very weak(ly)	
Degree 2	weak(ly) / to small degree	
Degree 3	soft(ly) / guarded(ly)	
Degree 4	measured(ly)	
Degree 5	somewhat strong(ly) / somewhat powerful(ly)	
Degree 6	adequately strong; with adequate strength	
Degree 7	strong(ly) / powerful(ly)	
Degree 8	very strong(ly) / very powerful(ly)	
Degree 9	with maximum power	

-kç	**FRC**	Degree of Physical Force Exerted
Degree 1	too light(ly) / too soft(ly) / too delicate(ly)	
Degree 2	light as a feather/ baby soft; extremely delicately or lightly or softly	
Degree 3	light/soft/hardly a; softly / lightly / delicately / gingerly	
Degree 4	somewhat on the light or soft side; somewhat softly / lightly / delicately / gingerly	
Degree 5	neither soft(ly) nor forceful(ly); with the right touch	
Degree 6	somewhat violent(ly) / somewhat forceful(ly)	
Degree 7	violent/forceful / rough; violently / with force / roughly	
Degree 8	very violent(ly) / very forceful(ly) / very rough(ly)	
Degree 9	too violent(ly) / too forceful(ly) / too rough(ly)	

-sk	**ITY**	Degree of Speed (i.e., Intensity of Movement or Change)
Degree 1	too slow (ly)	
Degree 2	very slow (ly)	
Degree 3	slow (ly)	
Degree 4	somewhat slow (ly)	
Degree 5	at just the right speed or intensity	
Degree 6	somewhat fast / somewhat quick(ly) / somewhat rapid(ly)	
Degree 7	fast / quick(ly) / rapid(ly); at fast pace	
Degree 8	very fast / very quick(ly) / very rapid(ly); at fast pace	
Degree 9	too fast / too quick(ly) / too rapid(ly); at fast pace	

-st	**SPD**	Degree of Speed (i.e., Velocity = Distance Over Time)
Degree 1	too slow (ly)	
Degree 2	very slow (ly)	

Degree 3	slow (ly)	
Degree 4	somewhat slow (ly)	
Degree 5	at just the right speed	
Degree 6	somewhat fast / somewhat quick(ly) / somewhat rapid(ly)	
Degree 7	fast / quick(ly) / rapid(ly); at fast pace	
Degree 8	very fast / very quick(ly) / very rapid(ly)/; at fast pace	
Degree 9	too fast / too quick(ly) / too rapid(ly); at fast pace	

-lt / -tl	**CFD**	Degree of Forthrightness, Confidence or Humility
Degree 1	too meek(ly) / too submissive(ly) / too obedient(ly) / too docile(ly)	
Degree 2	very meek(ly) / very submissive(ly) / very obedient(ly) / very docile(ly)	
Degree 3	meek(ly) / submissive(ly) / obedient(ly) / docile(ly)	
Degree 4	somewhat meek(ly) / somewhat submissive(ly) / somewhat obedient(ly) / somewhat docile(ly)	
Degree 5	properly humble / properly forthright ; with proper degree of humility or forthrightness	
Degree 6	somewhat confident(ly) / somewhat strong(ly) / somewhat definite(ly) / somewhat definitive(ly) or authoritative(ly)	
Degree 7	confident(ly) /strong(ly) / definite(ly)/ definitive(ly) / authoritative(ly)	
Degree 8	very confident(ly) / very strong(ly) / very definite(ly) / very definitive(ly) / very authoritative(ly)	
Degree 9	over-confident(ly) / too strong(ly) / too definite(ly) / too definitive(ly) / too authoritative(ly)	

-dh	**EFI**	Degree of Efficiency or Efficacy
Degree 1	destructively wasteful / disastrous(ly) / accomplishing the opposite of intention / making things worse	
Degree 2	very wasteful / accomplishing nothing / making a mess of it	
Degree 3	wasteful / accomplishing little	
Degree 4	somewhat wasteful / accomplishing somewhat less than expected	
Degree 5	adequate(ly) [in terms of efficiency]	
Degree 6	rather efficient(ly) / fairly efficient(ly) / accomplishing somewhat more than expected	
Degree 7	efficient(ly) / with little or no waste(d effort)	
Degree 8	extremely efficient(ly) / with no waste(d effort) whatsoever	
Degree 9	a synergy of… / sum beyond total of parts / a synergistic composite of ; to X synergistically	

-šq	**ERR**	Degree of Correctness versus Error
Degree 1	totally wrong / totally mis- or mal-; totally in error / erroneous(ly) / incorrect(ly)	
Degree 2	wrong/incorrect(ly) / mis- / mal- ; in error / erroneous(ly) / incorrect(ly)	
Degree 3	fairly wrong / fairly incorrect(ly)	
Degree 4	somewhat wrong / more wrong than right	
Degree 5	so-so; barely adequate(ly) / barely correct(ly)	
Degree 6	somewhat right / more right than wrong	
Degree 7	fairly right / fairly correct(ly)	
Degree 8	right / correctly	
Degree 9	totally right / totally correct(ly) / totally well-X'd	

-pʰ	**MAT**	Degree of Maturation
Degree 1	undeveloped / immature(ly) / seed / embryo	
Degree 2	under-developed / new born [stage, not age] / seedling / baby	
Degree 3	growing / budding / youthful / young	
Degree 4	maturing / developing / getting stronger or bigger or more complex or sophisticated	
Degree 5	fully developed / fully mature(d) / robust / ripe	
Degree 6	overly developed / overripe / showing signs of wear and tear / stressed / under stress / fatigued	
Degree 7	declining/fading; trail off/fade / getting softer or weaker / faded / decrepit / has-been / past one's prime	
Degree 8	disintegrating / utterly deteriorated / beyond repair or rehabilitation / irreparable / dying	
Degree 9	dead / defunct / disintegrated	

-ňz	**SBT**	Degree of Subtlety
Degree 1	too subtle(ly)	
Degree 2	very subtle(ly)	
Degree 3	subtle(ly)	
Degree 4	somewhat subtle(ly)	
Degree 5	somewhat unsubtle(ly)	
Degree 6	unsubtle(ly) / lumbering(ly) rather obvious/ fairly blatant / belabored ; belabor / lumber along X-ing	
Degree 7	obvious(ly) / blatant(ly) / exaggerated(ly)	
Degree 8	very obvious(ly) / very blatant(ly)	
Degree 9	over-the-top / in-your-face / to obvious(ly) / too blatant(ly)	

-kš	**DRC**	Degree of Directness
Degree 1	too indirect(ly)	
Degree 2	very indirect(ly)	
Degree 3	indirect(ly)	
Degree 4	somewhat indirect(ly)	
Degree 5	somewhat direct(ly)	
Degree 6	fairly direct(ly) / rather direct(ly)	
Degree 7	direct(ly) / straightforward	
Degree 8	very direct(ly) / very straightforward	
Degree 9	too direct(ly) / painfully straightforward	

-mš / -šm	**SUD**	Degree of Suddenness
Degree 1	too slow (ly) in happening, too long in X-ing, overdue, delayed	
Degree 2	very slow (ly) in happening or developing	
Degree 3	slow (ly) ; long in developing or happening	
Degree 4	somewhat slow (ly) ; somewhat long in developing or happening	
Degree 5	taking just the right amount of time to develop or occur	
Degree 6	somewhat immediate / somewhat sudden; somewhat imediately / somewhat suddenly	
Degree 7	immediate / sudden; imediately / suddenly	
Degree 8	very immediate / very sudden; very imediately / very suddenly	
Degree 9	too immediate / too sudden; too imediately / too suddenly	

-pç	**PCN**	Degree of Care, Precision or Scrutiny
Degree 1	utterly sloppy(ily) / totally careless(ly)	
Degree 2	very sloppy(ily) / very careless(ly)	
Degree 3	sloppy(ily) / careless(ly) / with poor attention to detail	
Degree 4	somewhat sloppy(ily) / somewhat careless(ly)	
Degree 5	less than careful(ly) / with only some degree of care	
Degree 6	somewhat careful(ly) / fairly precise(ly)	
Degree 7	precise(ly) / careful(ly) / detailed	
Degree 8	extremely precise(ly) / with great care or precision or scrutiny / meticulous(ly)	
Degree 9	overly precise(ly) / 'nit-picky' / with too much scrutiny / overly meticulous(ly)	

-cʰ	**CNC**	Degree of Concern or Consideration
Degree 1	…the hell…! / what the hell . . . / . . . who cares	
Degree 2	self-centered(ly) / without thought or concern for others	
Degree 3	at the very least / at the least level of concern required	
Degree 4	without concern / indifferent(ly) / without consideration / unconcerned(ly) / thoughtless(ly)	
Degree 5	reluctant(ly)	
Degree 6	at best / with the most concern one can muster	
Degree 7	concerned(ly) / with concern / with consideration for others	

Degree 8	very concerned(ly) / highly concerned(ly) / with great concern or consideration for others
Degree 9	overly concerned(ly) / worrisome(ly) / with too much concern or consideration for others / altruistically

-lk / -kl	**SPH**	Degree of Sophistication
Degree 1	too crude(ly) / too primitive(ly)	
Degree 2	very crude(ly) / very primitive(ly)	
Degree 3	crude(ly) / primitive(ly)	
Degree 4	somewhat crude(ly) / somewhat primitive(ly)	
Degree 5	with expected/normal degree or level of sophistication	
Degree 6	somewhat sophisticated or refined	
Degree 7	sophisticated or refined	
Degree 8	very sophisticated or refined	
Degree 9	too sophisticated or refined	

-çt	**CVT**	Degree of Covertness versus Overtness
Degree 1	too secretive(ly) / overly covert(ly)	
Degree 2	very secretive(ly) / highly covert(ly) / hidden / well behind the scenes	
Degree 3	secretive(ly) / covert(ly) / behind the scenes / between the lines / under the table / "back-room"	
Degree 4	somewhat secretive(ly) / somewhat covert(ly)	
Degree 5	not too secretive(ly) / not so open(ly)	
Degree 6	somewhat open(ly) / somewhat "up front"	
Degree 7	open(ly) / overt(ly) / "up front" / out in the open / honest / forthcoming(ly)	
Degree 8	very open(ly) / very overt(ly) / very "up front" / flaunting(ly) / brutally honest	
Degree 9	too open(ly) / too overt(ly) / overly flaunting(ly) / vulgar(ly)	

-rt / -tr	**EFT**	Degree of Effort
Degree 1	too difficult / overly difficult	
Degree 2	very difficult / so difficult	
Degree 3	strained / difficult; strain to / with difficulty / struggle to / to work at X-ing / to X hard	
Degree 4	somewhat difficult / not that easy	
Degree 5	neither easy nor difficult	
Degree 6	somewhat easy; not so difficult	
Degree 7	easy / certain / unhindered / with ease / without resistance / effortlessly	
Degree 8	very easy / so easy	
Degree 9	too easy / overly easy	

-ňž	**DSG**	Degree of Design or Purposefulness
Degree 1	purposeless(ly) /random(ly) / utterly unorganized / chaotic(ally)	
Degree 2	haphazard(ly) / without plan or guidance/ disorganized(ly) / poorly planned	
Degree 3	fairly haphazard(ly) / not well-planned / not well-organized	
Degree 4	somewhat haphazard(ly) / somewhat disorganized	
Degree 5	slightly disorganized / less than well-planned	
Degree 6	somewhat organized / somewhat well-planned	
Degree 7	organized(ly) / purposeful(ly) / well-planned	
Degree 8	very organized / very structured	
Degree 9	too organized / overly structured / "anal(ly)"	

-sq	**DCS**	Degree of Decisiveness, Commitment or Emphasis
Degree 1	indecisive / meandering; indecisively / first one way then another	
Degree 2	wishy washy / flaky	
Degree 3	some sort of / some kind of / sort of (like) / "kind of"; in a way / halfway / does and doesn't	
Degree 4	apparent(ly); seeming(ly)	
Degree 5	mere(ly) / only (a); merely / only	
Degree 6	deliberate / decisive; deliberately / decisively / purposefully	
Degree 7	a real / certainly a ; really / certainly [emphasis, not genuineness or veracity]	
Degree 8	the (one); in the only way that counts	
Degree 9	what (a) ...!; how . . .! ; Boy! Did (does) X ever …	

-št	**CTN**	Degree of Contrariness to Expectation(s) or Shift in Subject
Degree 1	but X would… / if things were otherwise X WOULD… / on the contrary, X WOULD [affirmation of hypothetical contrary to statement/suggestion otherwise	
Degree 2	but / X DOES/IS . . . / on the contrary … [affirmation of fact contrary to suggestion or statement otherwise]	
Degree 3	like it or not…/ well, as much as we didn't want to think it would happen...	
Degree 4	against expectation or belief '… after all' 'well, what do you know …X!'	
Degree 5	a genuine / real / true ; really do, [contrary to expectation]	
Degree 6	as a matter of fact	
Degree 7	'at least/at any rate'	
Degree 8	'by the way/ just to mention'	
Degree 9	not to change the subject but…/ sorry to change the subject, but…/ I don't mean to change the subject, but…	

-çk	**PHY**	Degree of Physical Control
Degree 1	uncontrolled/helpless(ly) ; without control/ out of control	
Degree 2	almost completely out of control / almost totally helpless	
Degree 3	losing control / losing the ability to…	
Degree 4	insufficiently trained in...	
Degree 5	amateur(ishly) / superficially able to…	
Degree 6	learn(ing) to… / begin(ning) to be able to…	
Degree 7	w/ growing proficiency or expertise (in)	
Degree 8	proficient(ly)	
Degree 9	in full control / expert(ly)	

7.4.11 Modality Suffixes

Many of these correspond to the modality suffixes used in valence/modality adjuncts (see Chapter 6). The nine degrees associated with each suffix allow a speaker control over the extent to which the modality category should apply to the utterance. These suffix forms function, then, as an alternative to adjunct forms for greater nuance in the applicability of the modality category and to apply them to nouns. The nine degrees of each suffix are as follows:

Degree 1	not at all
Degree 2	to too little a degree; to an insufficient degree
Degree 3	hardly at all
Degree 4	to a small degree
Degree 5	to a fair degree/somewhat
Degree 6	fairly much/more so than not
Degree 7	very much so / decidedly so / to a great degree
Degree 8	too much so / to too great a degree
Degree 9	to the exclusion of all else / without consideration for anything else

The specific modality suffixes are as follows:

-řb	**MD01**	resigned to
-řd	**MD02**	devoted; committed to / devoted to
-řč	**MD03**	desired / sought-after; want to
-řţ	**MD04**	attempted, attempt at a …; try to, attempt to
-řç	**MD05**	capable, able; can / able to / capable of
-řc	**MD06**	knowledgeable; can = know how to / familiar with
-řf	**MD07**	mandatory; must / have to
-řxh	**MD08**	required; should / be to
-řk	**MD09**	expected; be supposed to
-nd	**MD10**	intended; mean to / intend to / shall
-řg	**MD11**	chosen, selected; choose to / elect to

-řq	**MD12**	…on impulse; feel like X-ing
-řż	**MD13**	promised; promise to
-řj	**MD14**	well-liked; like (to)
-řţ	**MD15**	feared; fear (to)
-řs	**MD16**	willing; willing to
-řš	**MD17**	prepared / ready; prepared to/ready to
-řv	**MD18**	necessary / needed; need to
-řň	**MD19**	Daring; dare to
-řdh	**MD20**	decided-upon; decide to
-řz	**MD21**	offered/offer of; offer to
-řž	**MD22**	aided / assisted; help to / aid in X-ing
-řn	**MD23**	not unexpected; be prone to / be apt to / tend to
-rm	**MD24**	agreed-upon; agree to
-řl	**MD25**	responsible for/in charge of
-řp	**MD26**	remember to
-md	**MD27**	feel a need to / feel one should / feel one must / feel driven to
-qf	**MD28**	to guess or think [that]…
-tf	**MD29**	available; available to/for
-mv	**MD30**	potential; can = have potential to
-řt	**MD31**	permitted; can = permitted to
-ňg	**MD32**	hoped-for; hope/wish to
-mf	**MD33**	X by inclination; be inclined to

7.4.12 Agential/Participant Suffixes

-n	**AGC**	Degree of Agency
Degree 1	[AGENT] = one who forces/causes	
Degree 2	[ENABLER] = one who enables to happen	
Degree 3	[INFLUENCE] = one who persuades/influences	
Degree 4	ENABLER BY PERMISSION] = one who permits/allows/lets happen	
Degree 5	[PATIENT] = one who does/is made to do	
Degree 6	[EXPERIENCER] = one who undergoes/experiences	
Degree 7	[INSTRUMENT] = instrument which causes	
Degree 8	[STIMULUS] = one whose status is as stimulus of affective experience	
Degree 9	[SOURCE] = that which gives rise to, provides underlying reason for, source of	

This suffix and the following identify a formative as filling a specific semantic role corresponding in many cases to the semantic roles discussed in Sections 4.1.1 and 4.1.2. In several instances, these suffixes would translate the English “agentive” suffixes *-er*, or *-or*.

-m	**ROL**	Role
Degree 1	that which contains or functions as the enclosure / container / house / shelter of or for	
Degree 2	that which results from	
Degree 3	[RECIPIENT] = one who receives / has / "-ee"	
Degree 4	one who is / acts as / functions as	
Degree 5	one who is characterized by / described by...	
Degree 6	one who is similar to/functions or acts similarly to	
Degree 7	one whose responsibility is / who is responsible for / runs the business of (operationally speaking)	
Degree 8	one who constructs / makes / creates	
Degree 9	one who manages / oversees / supervises / coordinates / runs the business of (managerially speaking)	

-pš	**UTE**	Utilitative or Enabling Means
Degree 1	tool/device/apparatus specifically designed for X-ing	
Degree 2	medium by/through which one X's	
Degree 3	conduit-like tool/apparatus for X-ing	
Degree 4	natural/standard body part for X-ing	
Degree 5	object employed circumstantially as implement for X-ing	
Degree 6	covering/protective element employed to allow/permit X-ing	
Degree 7	enabling element/device/apparatus to allow/foster X-ing	
Degree 8	environment/situaton/circumstances/setting which allows/fosters X-ing	
Degree 9	FORCE which causes/permits X-ing	

-ž	**CNS**	Degree of Consent
Degree 1	deliberately without consent of knowledge	
Degree 2	without consent or knowledge as a precaution or “for their own good”	
Degree 3	without consent or knowledge due to circumstances	
Degree 4	with their knowledge but w/o consent; against their will	
Degree 5	consent obtained under pressure, threat, coercion	
Degree 6	w/ reluctant consent	
Degree 7	willingly; with full consent	
Degree 8	with enthusiastic approval and support	
Degree 9	at their request	

-t	**MEC**	Type of Mechanical Instrumentality = ‘by means of’
Degree 1	the body’s natural method of doing so (e.g., on foot, by hand, etc.)	
Degree 2	a manually manipulated generic tool or implement	
Degree 3	a specialized tool for that specific purpose or activity	
Degree 4	a machine or via mechanical means or process	
Degree 5	a virtual, electronic means or via engineering	
Degree 6	mental power, force of will, concentration	
Degree 7	a redirection or collation of energy specially applied	
Degree 8	a collective pooling of manual labor resources	
Degree 9	a collective pooling of electronic/mechanical/engineering resources	

-rx / -xr	**BOD**	Bodily Instrumentality = ‘by means of’
Degree 1	a hand	
Degree 2	an arm	
Degree 3	a foot	
Degree 4	a leg	
Degree 5	one’s eyes	
Degree 6	both legs	
Degree 7	both feet	
Degree 8	both arms	
Degree 9	both hands	

-mp	**DBI**	Additional Bodily Instrumentality = ‘by means of’
Degree 1	a finger	
Degree 2	a thumb	
Degree 3	a knee	
Degree 4	one’s head	
Degree 5	one’s teeth	
Degree 6	one’s lips	
Degree 7	one’s tongue	

Degree 8	one's elbow
Degree 9	one's fingers

-ld / -dl	SOC	Type of Social Instrumentality = ‘by means of’
Degree 1	via lackeys, grunt labor, go-fors or henchmen	
Degree 2	by coercion, threat, blackmail	
Degree 3	“fronts”, or disguised go-betweens	
Degree 4	indirectly through actions of others (unbeknownst to them)	
Degree 5	indirectly through actions of others (with their knowledge)	
Degree 6	by leveraging existing resources / personnel (deploying existing methods in a new application)	
Degree 7	via a proxy or proxies	
Degree 8	hired help or staff	
Degree 9	by delegation of task to experts	

-ňq	OAU	Origin/Association/Utilization
Degree 1	entity/thing/phenomenon that hails from X	
Degree 2	entity/thing/phenomenon associated with X	
Degree 3	entity/thing/phenomenon that utilizes X	
Degree 4	person that hails from X	
Degree 5	person associated with X	
Degree 6	person that utilizes X	
Degree 7	idea/practice/custom that hails from X	
Degree 8	idea/practice/custom associated with X	
Degree 9	idea/practice/custom that utilizes X	

-ndh	AUT	Authorization
Degree 1	by being granted a personal privilege / via the generosity or largess of another or others	
Degree 2	by inalienable human right / by natural right	
Degree 3	by right of a legal claim / by right of statute or law	
Degree 4	by right of custom or social convention / by right of general agreement or common knowledge	
Degree 5	by granting of a personal favor or claim on a favor owed	
Degree 6	by making of a threat or via a quid-pro-quo agreement	
Degree 7	by one's own formal authority, rank, or formal position	
Degree 8	by authority of one's social position, class, or position in informal or subjective hierarchy	
Degree 9	as authorized by a governing entity or formal collective authority	

-šš	RSN	Reason for an Emotional State or Motivation for an Action
Degree 1	for evil or perverse reasons	
Degree 2	for foolish or naïve reason	
Degree 3	due to deception by another	
Degree 4	due to faulty information provided by another [no deception intended]	
Degree 5	due to or based on faulty perception or misinterpretation of information or evidence	
Degree 6	despite negative circumstances or reasons not to	
Degree 7	for no reason	
Degree 8	for appropriate reasons / for good reason	
Degree 9	for virtuous, healthy reasons	

-ps	MTA	Additional Motivation for an Action or State
Degree 1	in anger	
Degree 2	in repugnance/revulsion	
Degree 3	in irritation	
Degree 4	in defense/for protection	
Degree 5	in fear	
Degree 6	out of curiosity/to see what happens	
Degree 7	to provoke/elicit reaction	
Degree 8	to entice	
Degree 9	to show appreciation	

-ňt	XPT	Expectation of Outcome
Degree 1	shockingly unexpected; without precedent or rumour	
Degree 2	surprise X / unexpected X; completely by surprise/ completely unexpected(ly)	
Degree 3	manage to X despite inadequacy of preparation or effort	
Degree 4	manage to X despite misguided or misdirected preparation or effort	
Degree 5	managed to X despite hindrance(s) or obstacles; hard-won	
Degree 6	manage to X due to hindrances or obstacles being overestimated; easier than thought to be	
Degree 7	manage to X due to excellent preparation / planning / execution	
Degree 8	completely as expected / totally as anticipated / as predicted	
Degree 9	pat; outcome pre-ordained or predetermined	

-sp	DLB	Degree of Deliberateness/Agency
Degree 1	accidental(ly) / inadvertent(ly) and unaware of consequences	
Degree 2	unintended / unintentional(ly) / without meaning to and unaware of consequences	
Degree 3	accidental(ly) / inadvertent(ly) but now aware of consequences	
Degree 4	unintended / unintentional(ly) / without meaning to but now aware of consequences	
Degree 5	unforseeable / unpredictable; unforeseeably / unpredictably	
Degree 6	without realizing or considering potential consequences	
Degree 7	thinking one can get away without reaping consequences / furtive(ly)	
Degree 8	realizing potential risks or consequences / cognizant of potential risks or consequences	
Degree 9	intentional(ly) / deliberate(ly) / on purpose / by choice; choose to	

-mz / -zm	MOT	Degree of Self-Conscious Deliberation or Motivation
Degree 1	affected, ostentatious; affectedly/ostentatiously	
Degree 2	self-conscious(ly)	
Degree 3	guilty / guiltily	
Degree 4	half-hearted(ly)	
Degree 5	against better judgement / can't help but / can't help it	
Degree 6	ingrained, by upbringing	
Degree 7	learned / habitual; by habit / trained to	
Degree 8	natural(ly) / un-self-conscious(ly)	
Degree 9	autonomic / unaware, automatic	

-ls / -sl	ENB	Degree of Enablement
Degree 1	by inadvertent gesture/word/sign taken as order or permission	
Degree 2	by granting of permission	
Degree 3	by cajoling or persuasion	
Degree 4	by direct request or imploring	
Degree 5	by direct order based on one's real or perceived authority	
Degree 6	by inadvertent removal of hindrance	
Degree 7	by inadvertent action that initiates a chain of events	
Degree 8	by deliberate removal of hindrance	
Degree 9	by deliberate action that initiates a chain of events	

-ms / -sm	AGN	Degree of Agency, Intent or Effectiveness
Degree 1	with the anticipated max. resulting effect possible	
Degree 2	with the anticipated resulting effect to a high degree	
Degree 3	with the anticipated resulting effect to a moderate degree	

Degree 4	with the anticipated resulting effect but only to a marginal, superficial or baredly noticable degree
Degree 5	with no noticeable effect or resulting change
Degree 6	with only marginal, superficial, or barely noticeable effect or resulting change unanticipated
Degree 7	with moderate effect or resulting change — unanticipated
Degree 8	with the resulting effect to a high degree — unanticipated
Degree 9	with the max. resulting effect possible — unanticipated

-rz / -zr	**IMP** Degree of Impact on Patient/Target or Enablement of Outcome
Degree 1	target can do nothing - utterly inevitable
Degree 2	target chooses to do nothing - resigned to fate
Degree 3	target tries to prevent/avoid but fails
Degree 4	target tries to prevent/avoid and does so partially or mitigates impact somewhat
Degree 5	target tries to prevent/avoid and succeeds
Degree 6	target helps/enables outcome inadvertently
Degree 7	target helps/enables outcome against own interest (i.e., without thinking)
Degree 8	target helps/enables outcome intentionally despite negative consequences
Degree 9	target helps/enables outcome intentionally for own benefit

7.4.13 Miscellaneous Suffixes

-t’	**TPF** Topic, Frame and Focus
Degree 1	[sentence topic]
Degree 2	[end of frame]
Degree 3	[head of relative clause]
Degree 4	[sentence topic + head of relative clause]
Degree 5	[end of frame + head of relative clause]
Degree 6	[sentence topic + end of frame]
Degree 7	[sentence focus + end of frame + head of rel. clause]
Degree 8	[sentence focus]
Degree 9	[sentence focus + end of frame]

The various functions of the above suffix are explained in Sec. 5.2 on Frames, and Sec. 9.1 on Topic and Focus.

-rm / -mr	**SWR** Switch Reference & Obviative Specification (For an explanation and illustration of this suffix, see Sec. 8.1.4 and Sec. 8.1.1.7)
Degree 1	nearest preceding referent
Degree 2	2nd to nearest preceding referent
Degree 3	3rd party not previously mentioned
Degree 4	referring to sentence focus
Degree 5	first referent mentioned
Degree 6	referring to sentence topic
Degree 7	3rd party non-transrelative referent
Degree 8	2nd order transrelative referent
Degree 9	higher order transrelative referent

-s	**PLA** Place, State, Setting Where…
Degree 1	place where one learns to
Degree 2	place where one does, performs, carries out X
Degree 3	place where one obtains
Degree 4	place where one stores or inventories
Degree 5	place where one keeps or shelters
Degree 6	place where one sees or views
Degree 7	natural habitat or environment of
Degree 8	place where one deals with/ treats/ confronts
Degree 9	place where one feels affected by

-mm	**APT** Aspects

Degree 1	yet, still
Degree 2	‘even’ as in “I don’t even like them” = in the least bit, to the slightest extent
Degree 3	Contemplative: upon reflection/ in hindsight
Degree 4	upon deep introspection / following careful consideration or meditation on the matter
Degree 5	on first blush / at first / upon initial impression / [my] first thought is/was…
Degree 6	natural(ly) / obvious(ly) / clear(ly) [in terms of naturalness, not blatancy]
Degree 7	Experiential: ever
Degree 8	Regressive: return to previous state
Degree 9	Protractive: over a long period of time / long-delayed

-ňš	**TEM** Alternative Temporal Aspects
Degree 1	Inceptive: begin to / start to
Degree 2	Resumptive: begin again / start again / resume
Degree 3	Continuative: keep on / still / continue / stay / yet
Degree 4	Incessative: to X away / not stop
Degree 5	tire of X-ing / get tired of X-ing / become weary of X-ing
Degree 6	Cessative: stop / discontinue / cease
Degree 7	Pausal: take a break from [stop with intention to re-sume]
Degree 8	Recessative: stop again
Degree 9	Terminative: finish / complete

-rs / -sr	**PTF** Part/Whole Functional Metaphors
Degree 1	engine / motor / heart / pump / core / driver mechanism
Degree 2	brain / computer / chip / instruction set
Degree 3	input / feeder / access point
Degree 4	exit point / anus / exhaust / tailpipe / smokestack / vent
Degree 5	wing/ arm / branch / extensor / manipulator
Degree 6	support / leg / stand / base
Degree 7	skeleton / frame
Degree 8	wiring / conduits / plumbing
Degree 9	sensor / eye / ear / antennae

-š	**PTG** Part/Whole Gestalt Componential Metaphors
Degree 1	“base”portion (e.g., upper arm)
Degree 2	“extension” portion (e.g., forearm) or “flange”
Degree 3	“trunk” or central bulk portion
Degree 4	middle or divisional segment or joint
Degree 5	top/upper component relative to gravity or natural vector of movement
Degree 6	bottom/lower component relative to gravity or natural vector of movement
Degree 7	side/flank/ lateral component
Degree 8	“head” extension or main interface area
Degree 9	extension/”arm”

-qt	**MET** Metonymic Categories
Degree 1	part for whole
Degree 2	producer for product
Degree 3	object used or owned for user/owner
Degree 4	controller for controlled
Degree 5	institution for people responsible
Degree 6	place for inhabitants/occupants
Degree 7	place for event
Degree 8	place for institution
Degree 9	attribute or characteristic for owner

Metonymy is the reference to an entity via one of its attributes, associations or activities, as in ***The ham-and-cheese*** *wants fries with his order* or ***The White House*** *has its nose in our business.*

White House *has its nose in our business.*

-k	**SSD**	Stem-Specific Derivatives
Degree 1	derivative 1	
Degree 2	derivative 2	
Degree 3	derivative 3	
Degree 4	derivative 4	
Degree 5	derivative 5	
Degree 6	derivative 6	
Degree 7	derivative 7	
Degree 8	derivative 8	
Degree 9	derivative 9	

This suffix is used to distinguish particular instantiations of a more generic entity; their meaning is semantically specific to the particular stem.

-k’	**SBS**	Subset of Configurative Set
Degree 1	single specific member (random, i.e., any given member)	
Degree 2	natural first level subset, e.g., *a cell among a network, a clique within a club, a row of an orchard*	
Degree 3	natural 2nd level subset, e.g., *a section of a network, a subcommittee within a club, a section of an orchard*	
Degree 4	complex natural system or pattern within a set (e.g., *the circulatory system, the heating system*)	
Degree 5	subset of set (unknown if natural or select subconfiguration)	
Degree 6	complex/circumstantial select pattern/arrangement within a set (e.g., *the parts/things of a house damaged by fire*)	
Degree 7	2nd level subset (externally determined), e.g., *select section of trees of an orchard*	
Degree 8	first level subset (externally determined), e.g., *select rocks from a pile, select trees of an orchard*	
Degree 9	single select member (externally determined)	

-rq	**SPS**	Supersets/Multi-Level Gestalts (e.g., musical note --> melody --> movement of musical piece --> symphony/suite, etc.)
Degree 1	3rd-level superset/gestalt based on number nodes	
Degree 2	3rd-level superset/gestalt based on new layer of infrastructure	
Degree 3	3rd-level superset/gestalt based on complexity leading to the appearance/manifestaton of emergent properties	
Degree 4	2nd-level superset/gestalt based on number nodes	
Degree 5	2nd-level superset/gestalt based on new layer of infrastructure	
Degree 6	2nd-level superset/gestalt based on complexity leading to the appearance/manifestaton of emergent properties	
Degree 7	4th-level superset/gestalt based on number nodes	
Degree 8	4th-level superset/gestalt based on new layer of infrastructure	
Degree 9	4th-level superset/gestalt based on complexity leading to the appearance/manifestaton of emergent properties	

-p’	**ATN**	Degree of Attention or Determination
Degree 1	concentrate fully upon; pay utmost attention to	
Degree 2	concentrate to point of distraction, to be ‘lost’ in X-ing	
Degree 3	pay strict attention to	
Degree 4	determined to	
Degree 5	pay attention to; attend to; be careful that you…; heed	
Degree 6	keep an eye on	
Degree 7	take some notice of	
Degree 8	barely notice; take little notice of	
Degree 9	ignore completely	

-šk	**DPR**	Dispersion or Separability of a Configurative Set
Degree 1	in total contact / contiguous mass of; pile, “ball of…”	
Degree 2	non-contiguous but closely connected, interlinked, each linked to adjacent via connecting medium (like web); cluster	
Degree 3	connected via intervening central medium (like a vine or branches); bunch	
Degree 4	not physically connected but with immediate accessibility and knowledge of other member actions	
Degree 5	scattered - contact with nearest member possible but less possible with others	
Degree 6	“virtual” association only	
Degree 7	temporal (iterative) set – iteration at long intervals	
Degree 8	temporal (iterative) set – iteration at frequent intervals	
Degree 9	temporal (iterative) set – iteration at very short, immediate intervals / one after another	

-mb	**SEP**	Spatio-Temporal Separability of a Configurative Set
Degree 1	Logical connectedness only (spatial)	
Degree 2	Loosely integrated spatially – one positioned far away from another	
Degree 3	Loosely integrated spatially – one positioned a little ways away from another	
Degree 4	Well-integrated spatially – one positioned right next to or behind another	
Degree 5	Both spatially and temporally well-integrated (one right after another)	
Degree 6	Well-integrated temporally – one right after the other	
Degree 7	Loosely integrated temporally – one a little while after the other	
Degree 8	Loosely integrated temporally – one a long while after the other	
Degree 9	Logical connectedness only (temporal)	

-ňk	**SDP**	Subset of Duplex Set
Degree 1	first, top, front, lefthand or lead “half” of duplex set or pair (e.g., upper lip, inhale/inhalation, left hand)	
Degree 2	beginning or leading “edge” of the first, top, front, lefthand or lead “half” of a duplex event or object	
Degree 3	middle section of the first, top, front, lefthand or lead “half” of a duplex event or object	
Degree 4	ending or trailing “edge” of the first, top, front, lefthand or lead “half” of a duplex event or object	
Degree 5	midpoint, peak, or lull between the 2 halves of a duplex set or pair	
Degree 6	beginning or leading “edge” of 2nd, bottom, back, righthand or trailing “half” of a duplex event or object	
Degree 7	middle section of 2nd, bottom, back, righthand or trailing “half” of a duplex event or object	
Degree 8	ending or trailing “edge” of 2nd, bottom, back, righthand or trailing “half” of a duplex event or object	
Degree 9	2nd, bottom, back, righthand or trailing “half” of duplex set or pair (e.g., lower lip, exhale/exhalation, right hand)	

-xt	**NEW**	Degree of Newness/Revision
Degree 1	new = original + new, i.e., never before seen	
Degree 2	new = never before seen within current context, e.g., a new student	
Degree 3	new = role, i.e., never functioning/existing in this capacity/manner before	
Degree 4	new/other = replacement + new	
Degree 5	new/other = additional instance + new	
Degree 6	new/other = revision + additional	
Degree 7	new/other = revision + replacement	
Degree 8	new/other/different = different, not seen/used before within current context; status as addition/replacement unknown or inapplicable	
Degree 9	new/other/different = different + new; status as addition/replacement unknown or inapplicable	

-ks	**COS**	Comparison Specifications (Used with Levels) - see Section 6.2 and Section 6.2.5
Degree 1	“more”/“less” = extent/amount/volume	
Degree 2	“harder”/“weaker” = degree of intensity or effort	
Degree 3	“longer”/“shorter” = duration; time spent being/doing	

Degree 4	“better”/“worse” = quality / style
Degree 5	“more efficiently”/“less efficiently” = efficiency / effort relative to outcome
Degree 6	“greater”/“poorer” = relevant outcome / bottom-line result
Degree 7	combo of 4, 5, and 6
Degree 8	combo of 1, 2, and 3
Degree 9	combo of 1 through 6

-ln / -nl	**WAK**	Spread/wake/trail/area/expanse created by passage of entity
Degree 1	quasi-linear “trail” or wake left behind on path of linear movement; trail or wake is not composed of the moving entity itself but shows effect of its passage (e.g., slime trail left by snail, footprints left on snow, mowed down foliage left by moving convoy, etc.)	
Degree 2	quasi-linear spread of entity stretching behind linearly moving “head” (e.g., a line of soldiers put in place to create a front, a line left on a piece of paper as written by an ink pen, path of a ball of string or skein of yarn as it unravels while rolling down an incline)	
Degree 3	quasi-linear trail/wake/spread left behind passage as line of demarcation/boundary/barrier	
Degree 4	2-d quasi-planar wake left behind on path of movement; wake is not composed of the moving entity itself but shows effect of its passage (e.g., aftermath of a forest fire, cleaned area of dirty floor or wall after it has been wiped by a mop or dustcloth)	
Degree 5	2-d quasi-planar spread stretching behind moving front (e.g., area of spreading flames in a forest fire, area being inundated by a flood, area of a wall being covered up by plaster by workmen, coating of an apple dipped in chocolate, area of floor covered up by a rug)	
Degree 6	2-d quasi-planar wake/spread left behind passage as area of demarcation/zone/restricted area	
Degree 7	3-d volume left behind a moving front; volume is not composed of or inundated with the moving entity itself but shows effect of its passage (e.g., area left behind the passage of a tidal wave, column of superheated air left behind the passage of a rocket	
Degree 8	3-d volume inundated by spread of moving front (e.g., spread of a gas within a room, area inundated by fog, volume of a container taken up by substance placed/poured/stuffed into it)	
Degree 9	3-d volume left behind passage of moving front as volume/spatial area of demarcation/zone/restricted space	

The above affix distinguishes movement of an entity from the “trail” or spread left behind, e.g., movement which leaves behind a wake or affected area; used with motion roots as well as roots designating shapes/forms. Use of the above suffixes in conjunction with the various roots pertaining to paths of translative movement allows for very nuanced translations of English words such as *surround, cover, inundate, enclose, expand, spread out, encompass*, etc.

-šp	**SCT**	Degree of Shift/Change/Transition (used for both spatial and temporal contexts)
Degree 1	sharp break, sudden shift from one state/form/shape/set of circumstances to another with no discernible transition period/zone (i.e., point-like/instantaneous transition)	
Degree 2	disjointed/non-contiguous/non-continuous break/shift from one state/form/shape/set of circumstances to another	
Degree 3	extremely brief/small/barely discernible transition period or zone from one state/form/shape/set of circumstances to another	
Degree 4	somewhat brief/small/discernible transition period or zone from one state/form/shape/set of circumstances to another	
Degree 5	normal/standard/expected transition period or zone from one state/form/shape/set of circumstances to another	
Degree 6	somewhat variable/changing/fluctuating transition period/zone from one state/form/shape/set of circumstances to another	
Degree 7	highly variable/chaotic transition period/zone from one state/form/shape/set of circumstances to another	
Degree 8	smooth, gradual transition period/zone from one state/form/shape/set of circumstances to another	
Degree 9	very gradual/almost imperceptible rate/degree of change/transition from one state/form/shape/set of circumstances to another	

-lm / -ml	**NNN**	n-numbered angles/facets/faces/sides/points/forms
Degree 1	uneven /assymmetrical n–sided 2-D obtusely angled form (e.g., quadrilateral, pentagonoid, hexagonoid	
Degree 2	uneven/assymetrical n-pointed 2-D acutely angled “star” formation	
Degree 3	uneven/assymetrical n-faceted 3-D solid	
Degree 4	uneven/assymmetrical n-faced 3-D solid (e.g., n-hedron-like solid)	
Degree 5	having n number of 3-D projections/spikes/pointed surfaces	
Degree 6	symmetrical n-faced 3-D solid (e.g., tetrahedron, dodecahedron)	
Degree 7	symetrical n-faceted 3-D solid	
Degree 8	symetrical n-pointed 2-D acutely angled “star” formation (can be used with numbers as low as 2, which would refer to an elongated diamond shape)	
Degree 9	symmetrical n–sided 2-D form (e.g., square, pentagon, hexagon)	

The above affix is used with the number stems (see Chapter 12) to provide words for forms, shapes, and solids bearing a distinct number of angles, points, sides, facets, etc.

-mļ	**LVL**	Alternate forms of Comparison Operators (Levels) (see Section 6.2.3) - V_1C forms correspond to relative comparison, V_2C forms to absolute comparison.
Degree 1	**EQU**	EQUATIVE
Degree 2	**SUR**	SURPASSIVE
Degree 3	**DFC**	DEFICIENT
Degree 4	**OPT**	OPTIMAL
Degree 5	**MIN**	MINIMAL
Degree 6	**SPL**	SUPERLATIVE
Degree 7	**IFR**	INFERIOR
Degree 8	**SPQ**	SUPEREQUATIVE
Degree 9	**SBE**	SUBEQUATIVE

-lţ	**FNS**	Material States/Forms (non-solid / quasi-solid)
Degree 1	X as liquid	
Degree 2	X as goo or slime-like substance	
Degree 3	X as powder or dust-like substance	
Degree 4	X as gravel or sand-like substance	
Degree 5	X as gas	
Degree 6	X as wax(y) or clay-like substance	
Degree 7	X as rubber(y) or eslastic substance	
Degree 8	X as flexible subtance like cotton or cloth	
Degree 9	X as flaky subtance or shavings	

-lf	**FMS**	Material States/Forms (solids)
Degree 1	X as frozen	
Degree 2	X as carvable substance (like wood or soap)	
Degree 3	X as chalk-like, friable substance	
Degree 4	X as rock or cement-like substance	
Degree 5	X as solid	
Degree 6	X in natural chunks or randomly-shaped solid pieces	
Degree 7	X as block-like or formed pieces	
Degree 8	X as hardened/durable subtance	
Degree 9	X as metal(lic)	

-lv	**TRF**	Transformation for Use
Degree 1	Cured (transformed by natural chemical process)	
Degree 2	Treated	
Degree 3	Processed (transformed by artificial/man-made process)	
Degree 4	Transformed via exposure to or saturation w/ other substance(s)	
Degree 5	Cooked	
Degree 6	Soaked/saturated/marinated with liquid(s)	

Degree 7	Derived (chemically or processually) from something else	
Degree 8	Fermented	
Degree 9	Pickled/Brined	

-lb	**CVY**	Means of Transportation/Conveyance
Degree 1	holder / stabilizer for (transporting/holding) X	
Degree 2	mystical/magical/supernatural means for (transporting/holding) X	
Degree 3	automatic or separately controlled vehicle/vessel used for (transporting/holding) X	
Degree 4	automated/electronic means for (transporting/holding) X	
Degree 5	manually operated vessel/vehicle used for (transporting/holding) X	
Degree 6	jury-rigged means for (transporting/holding) X	
Degree 7	method/practice used for (transporting/holding) X	
Degree 8	device used for (transporting/holding) X	
Degree 9	rule/regulation/by-law for (transporting/holding) X	

-lš	**FEA**	Featural Properties
Degree 1	functional mainfestation/portion/piece of X	
Degree 2	container(ful) of X	
Degree 3	a sample of X	
Degree 4	a display(ing) of X	
Degree 5	an instance of X	
Degree 6	an aspect/characteristic/trait of X	
Degree 7	a feature/function of X	
Degree 8	a highlight / key feature of X	
Degree 9	an example of X	

-nļ	**STG**	Stage of a Process
Degree 1	onset/initiation/birth of X	
Degree 2	development/build-up of X	
Degree 3	point of no return/iminent transition of X	
Degree 4	plateau stage, rest or pause before next stage of X	
Degree 5	(at) peak / in prime / mature stage	
Degree 6	abrupt or premature termination of X	
Degree 7	gradual decline of X	
Degree 8	end stage / final state / terminal or last stage	
Degree 9	cessation / finished / over / dead	

-lc	**CGL**	Motive/Reason for Conglomeration/Coming Together of Gestalt Entity
Degree 1	by voluntary/volitional association	
Degree 2	by appointment to the task	
Degree 3	by custom/societal convention/expectation	
Degree 4	by random chance	
Degree 5	by being forced to	
Degree 6	by being pressured	
Degree 7	by reluctant volunteering	
Degree 8	for pragmatic/utilitarian reasons	
Degree 9	by eager/enthusiastic volunteering	

-lq	**INB**	Inability/Incapacity Due To . . .
Degree 1	inability/incapacity to [perform/achieve/realize] X due to absence/loss of resource(s)	
Degree 2	inability/incapacity to [perform/achieve/realize] X due to absence/loss of physical means	
Degree 3	inability/incapacity to [perform/achieve/realize] X due to absence/loss of skill/knowledge	
Degree 4	inability/incapacity to [perform/achieve/realize] X due to blockage/prevention of access to resource(s)	
Degree 5	inability/incapacity to [perform/achieve/realize] X due to blockage/prevention of access to physical means	
Degree 6	inability/incapacity to [perform/achieve/realize] X due to blockage/prevention of access to skill/knowledge	
Degree 7	inability/incapacity to [perform/achieve/realize] X due to psychological trauma	
Degree 8	inability/incapacity to [perform/achieve/realize] X due to physical trauma	
Degree 9	inability/incapacity to [perform/achieve/realize] X due to loss/absence of desire	

-ff	**PLE**	Degree of (Un-)Pleasantness (of Effect or Result)
Degree 1	maximally unpleasant, horrible, ghastly, terrible	
Degree 2	very unpleasant, awful	
Degree 3	unpleasant, mildly awful	
Degree 4	somewhat unpleasant, disagreeable	
Degree 5	neutral, neither pleasant nor unpleasant, bland	
Degree 6	somewhat pleasant, agreeable	
Degree 7	pleasant, a nice experience	
Degree 8	very pleasant, pleasureable	
Degree 9	maximally pleasant, very pleasureable, exstacy	

-rc	**ACQ**	Acquisition
Degree 1	acquired by chance/whim/having stumbled upon	
Degree 2	acquired by mental effort/learning/study/creation	
Degree 3	acquired by informal, spur-of-the-moment search	
Degree 4	acquired by trickery/subterfuge	
Degree 5	innate/inherent	
Degree 6	acquired by formal search	
Degree 7	acquired by informal agreement/negotiation	
Degree 8	acquired by formally negotiated trade or deal	
Degree 9	acquired by purchase	

-rf	**TAL**	Degree of Capacity or Talent for...
Degree 1	no capacity/talent for X(-ing)	
Degree 2	almost no capacity/talent for X(-ing)	
Degree 3	poor/little capacity/talent for X(-ing)	
Degree 4	capacity/talent for X(-ing)	
Degree 5	capacity/talent for X(-ing)	
Degree 6	above average/good capacity/talent for X(-ing)	
Degree 7	very good capacity/talent for X(-ing)	
Degree 8	excellent capacity/talent for X(-ing)	
Degree 9	outstanding capacity/talent for X(-ing)	

-rtļ	**RNC**	Renunciation
Degree 1	give up X-ing / give up on X	
Degree 2	lose faith/belief in X(-ing)	
Degree 3	stop trying to X	
Degree 4	undermine (efforts to) X	
Degree 5	refuse to X	
Degree 6	lose sense of resolve/commitment to X	
Degree 7	no longer have passion for X / lose passion for X	
Degree 8	lose ability to do/be/make X	
Degree 9	lack means/ability to X	

-mx	**DPT**	Depiction/Representation/Record
Degree 1	symbol/emblem/logo representing/standing for X	
Degree 2	allegorical reference to X	
Degree 3	stand-in/substitute for X	
Degree 4	symptom/consequence of X	
Degree 5	representation/depiction/illustration of X	
Degree 6	trace/clue/vestige of X	
Degree 7	record of X	
Degree 8	pointer to/indicator of X	
Degree 9	map/blueprint/schematic diagram of X	

-lč	**ENG**	Degree of Engagement/Involvement
Degree 1	avoiding X(-ing) at all costs; run away from X(-ing)	
Degree 2	averse to X(-ing); fear X(-ing)	
Degree 3	shirk involvement in X(-ing); not be/get involved in	
Degree 4	to X for appearance' sake only; to X solely for show	
Degree 5	lackluster interest/involvement in X(-ing)	
Degree 6	marginal interest/involvement in X(-ing)	
Degree 7	limited/partial involvement in X(-ing)	
Degree 8	fully involved/engrossed in X(-ing)	
Degree 9	irreversibly involved/engrossed in X(-ing)	

-lg	**OPF**	Degree of Operational Functionality
Degree 1	disintegrated, in pieces, shattered	
Degree 2	irreparably damaged, ruined	
Degree 3	badly damaged, non-operational, non-functional (with possibilty of being repaired)	
Degree 4	damaged -- only partially functional (i.e., some parts/aspects are functional while others are not)	
Degree 5	something wrong with X, not functioning properly, something not right with X	
Degree 6	impaired -- functional but not performing to full extent of output or efficiency	
Degree 7	in fair working order/condition	
Degree 8	in good working order/condition	
Degree 9	in optimum working order / in excellent condition	

-rç	**MLR**	Meta-level representation/coordination/analysis
Degree 1	formal theory explaining/coordinating X	
Degree 2	plan explaining/coordinating X	
Degree 3	idea explaining/coordinating X	
Degree 4	folk theory or accepted societal convention explaining/coordinating X	
Degree 5	illustration/picture/graphic representation explaining/coordinating X	
Degree 6	physical model explaining/coordinating X	
Degree 7	mathematical model explaining/coordinating X	
Degree 8	logical explaining/coordinating X	
Degree 9	metaphorical representation of X	

-rp	**HG1**	Linguistic Hedges (1st group)
Degree 1	more or less	
Degree 2	for all practical purposes / to all intents and purposes / practically / virtually/all but technically	
Degree 3	sort of / kind of	
Degree 4	strictly speaking	
Degree 5	essentially / in essence / basically	
Degree 6	might as well be	
Degree 7	in one sense	
Degree 8	in some sense	
Degree 9	par excellence	

-lp	**HG2**	Linguistic Hedges (2nd group)
Degree 1	in a sense / in a way	
Degree 2	in a manner of speaking	
Degree 3	more of a ___ than anything else	
Degree 4	(what can be looked at (as) / (what) can be viewed as / (what) one thinks of (as) / one might say that	
Degree 5	loosely speaking	
Degree 6	so-called	
Degree 7	in name only	
Degree 8	so to say	
Degree 9	for all I know / for all one knows	

7.4.14 Locational Suffixes

-rš / -šr	**LCT**	Locational Octant Markers for Object Being Located (see Section 10.3.3)
Degree 1	+X / +Y / +Z = “right / ahead / above” = Octant 1	
Degree 2	+X / +Y / -Z = “right / ahead / below ” = Octant 2	
Degree 3	+X / -Y / +Z = “right / behind / above” = Octant 3	
Degree 4	+X / -Y / -Z = “right / behind / below ” = Octant 4	
Degree 5	object at rest relative to other object	
Degree 6	-X / +Y / +Z = “left / ahead / above” = Octant 5	
Degree 7	-X / +Y / -Z = “left / ahead / below ” = Octant 6	
Degree 8	-X / -Y / +Z = “left / behind / above” = Octant 7	
Degree 9	-X / -Y / -Z = “left / behind / below ” = Octant 8	

-bz	**PXM**	Degree of Proximity
Degree 1	too close	
Degree 2	as close as possible without contact	
Degree 3	very close to	
Degree 4	close to	
Degree 5	somewhat close to	
Degree 6	not very close to / somewhat far from	
Degree 7	far from / distant from	
Degree 8	far away / very far from	
Degree 9	too far away	

-gz	**CTC**	Degree of Contact
Degree 1	melded with / blended with / fused	
Degree 2	inseparable(ly) / locked together / bonded	
Degree 3	linked / attached / connected / joined	
Degree 4	touching intimately / touching all over / flush with / in close contact with	
Degree 5	deliberately touching at several spots or places or over a fair area	
Degree 6	deliberately touching at one spot or place	
Degree 7	casually or incidentally touching at several spots or places or over a fair area	
Degree 8	casually or incidentally touching at one spot or place	
Degree 9	barely touching / hardly touching at all / touching at one small spot	

-rb	**VWP**	From Viewpoint/Perspective of
Degree 1	from viewpoint/perspective of speaker	
Degree 2	from viewpoint/perspective of 3rd party visible/near to speaker	
Degree 3	from viewpoint/perspective of the last-mentioned argument/referent	
Degree 4	from viewpoint/perspective of a party other than one under discussion	
Degree 5	from viewpoint/perspective of 3rd party under discussion	
Degree 6	from viewpoint/perspective of an as-yet-undetermined 3rd party	
Degree 7	from viewpoint/perspective of the first-mentioned argument/referent	
Degree 8	from viewpoint/perspective of 3rd party visible/near to listener	
Degree 9	from viewpoint/perspective of listener	

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Ithkuil: A Philosophical Design for a Hypothetical Language

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Chapter 8: Adjuncts

8.1 Personal Reference Adjuncts
8.2 Aspectual Adjuncts
8.3 Affixual Adjuncts
8.4 Bias Adjuncts

The notion of adjuncts was introduced in Section 2.4.2. We have already discussed details of some kinds of adjuncts — verbal adjuncts were introduced in Chapter 6. In this chapter, several additional types of adjuncts are introduced.

8.1 PERSONAL REFERENCE ADJUNCTS

The first type of adjunct we will analyze are those relating to personal reference. By “personal reference” is meant the grammatical description of nouns by abbreviated forms of reference. In most languages, this is accomplished by means of personal pronouns (e.g., English *he, she, it, I, you, him, her, mine, ours*, etc.). Generally, personal pronouns are distinguished by “person” (1st, 2nd , or 3rd) and case (e.g., compare English we, us, and ours). Ithkuil accomplishes the equivalent function by means of personal reference adjuncts, of which there are two types: single-referent and dual-referent.

Like other adjuncts in Ithkuil, personal reference adjuncts are highly synthetic in their structure, comprised of at least two morphemes and usually more. Before we examine the componential structure of personal reference adjuncts themselves, we must first introduce the personal reference categories they refer to.

8.1.1 Personal Reference Categories

The morpho-semantic delineations of Ithkuil personal reference categorization are based on inclusion or exclusion in relation to an utterance. These delineations begin with identifying whether or not the party speaking is included or excluded in relation to the utterance. The next delineation made is whether the party being addressed (i.e., the audience/listener) is included or excluded, then finally whether any third party (i.e., a party other than the speaker and the addressee) is included or excluded.

There are 44 personal reference categories in Ithkuil, each of which is represented by a single consonant affix plus a corresponding falling or high tone as shown in Table 26 below. The various terms and abbreviations used in the table are explained following the table.

Table 26(a) and (b): Personal Reference Categories

PRONOUNCED WITH FALLING TONE				
	Label	Speaker Included	Addressee Included	3rd Party Included
t	1m	YES	—	—
s	1+2m	YES	monadic	—
š	1+2u	YES	unbounded	—
k	2m	—	monadic	—
p	2u	—	unbounded	—
q	ma	—	—	monadic animate
xh	ua	—	—	unbounded animate
ç	Col	—	—	Collective
l	Ea	—	—	universal animate
v	IDa	—	—	indefinite animate
r	Mx	—	—	mixed m/u/a/i
ř	IPa	—	—	impersonal animate
ţ	1+ma	YES	—	monadic animate
n	1+ua	YES	—	unbounded animate
x	2m+ma	—	monadic	monadic animate
ň	2m+ua	—	monadic	unbounded animate
f	2u+ma	—	unbounded	monadic animate
m	2u+ua	—	unbounded	unbounded animate
h	1+2m+ma	YES	monadic	monadic animate
z	1+2m+ua	YES	monadic	unbounded animate
ļ	1+2u+ma	YES	unbounded	monadic animate
ž	1+2u+ua	YES	unbounded	unbounded animate

PRONOUNCED WITH HIGH TONE				
	Label	Speaker Included	Addressee Included	3rd Party Included
t	1m+Mx	YES	—	mixed m/u/a/i
s	1+2m+Mx	YES	monadic	mixed m/u/a/i
š	1+2u+Mx	YES	unbounded	mixed m/u/a/i
k	2m+Mx	—	monadic	mixed m/u/a/i
p	2u+Mx	—	unbounded	mixed m/u/a/i
q	mi	—	—	monadic inanimate
xh	ui	—	—	unbounded inanimate
ç	Abt	—	—	Abstract
l	Ei	—	—	universal inanimate
v	IDi	—	—	indefinite inanimate
r	Obv	—	—	Obviative
ř	IPi	—	—	impersonal inanimate
ţ	1+mi	YES	—	monadic inanimate
n	1+ui	YES	—	unbounded inanimate
x	2m+mi	—	monadic	monadic inanimate
ň	2m+ui	—	monadic	unbounded inanimate
f	2u+mi	—	unbounded	monadic inanimate
m	2u+ui	—	unbounded	unbounded inanimate
h	1+2m+mi	YES	monadic	monadic inanimate
z	1+2m+ui	YES	monadic	unbounded inanimate
ļ	1+2u+mi	YES	unbounded	monadic inanimate
ž	1+2u+ui	YES	unbounded	unbounded inanimate

Explanation of abbreviations and terms in the above table:

1 = Inclusion of speaker
2 = Inclusion of addressee
m = monadic (single party)
u = unbounded (more than one party)
a = animate 3rd party
i = inanimate 3rd party
E = universal ('everyone/everything')
Mx = mixed combination of 3rd parties (including animate+inanimate or MONADIC+UNBOUNDED)
IP = Impersonal ('one')

ID = Indefinite ('anyone/anything')
Obv = Obviative (see Sec. 8.1.1.7 below)
Col = Collective (see Sec. 8.1.1.5 below)
Abt = Abstract (see Sec. 8.1.1.6 below)

The following sections explain the terminology in the above table.

8.1.1.1 Monadic vs. Unbounded. These terms were discussed in detail in Sec. 3.3 on Perspective. For simplicity's sake, the difference between a MONADIC third party versus an UNBOUNDED third party can be thought of as the difference between 'he/she/it' and 'they.'

8.1.1.2 Speaker and Addressee. These terms refer respectively to the party speaking (in Western grammar the first person), the party being spoken to (the second person), and a third party being considered or mentioned (the third person). Unlike the standard six-person matrix common in Western grammar (the three persons divided into singular and plural), Ithkuil divides personal reference along logical lines of inclusion versus exclusion in the speaker's utterance.

From the viewpoint of Ithkuil grammar, only a single individual can speak. Even if there are two or more persons speaking the same utterance simultaneously it is but a collection of single individuals, each of which is one speaker. Therefore, the "first person" of Ithkuil, the speaker, can be only MONADIC, never UNBOUNDED. Thus, in Ithkuil, there is no true equivalent to the word "we," since inherent in the various categories which translate "we" is the concept of "I plus some other entity or entities." From this we can begin to see how it is the idea of inclusion or exclusion in the speaker's utterance that determines the various personal reference categories.

The "second person" in Ithkuil is the addressee, the person(s) being addressed or spoken to. There can be one addressee, or more than one addressee, i.e., MONADIC or UNBOUNDED.

The "third person" in Ithkuil is where things get very complicated, in that a party being referenced who is not the speaker or the addressee can have many distinctions, including the presence or absence of animacy, being MONADIC versus UNBOUNDED, being referred to as a collective entity, being an intangible abstraction, being indefinite, being an impersonal generic reference, or being a combination of two or more of these categories. These distinctions are explained below.

8.1.1.3 Animate vs. Inanimate. This is as it sounds. As we saw in earlier chapters, particularly Sec. 4.1, several important morphological categories in Ithkuil are dependent on whether the party to the act, condition, or event is a living entity or inanimate. Note that the distinction between gender (he vs. she) found in most Western languages does not exist in the Ithkuil personal reference system.

8.1.1.4 "Mixed" Third-Party Reference. It is possible for the third party being referenced to be two or more entities of different natures. For example a speaker could make reference to "I, you, and they" where "they" consists of a group consisting of one person (i.e., a monadic animate entity), three boxes (i.e., a polyadic inanimate entity), and an intangible concept such as 'happiness' (i.e., an abstract entity). In such cases, Ithkuil personal reference categories provide for such "mixed" parties to be included in a particular personal referent.

8.1.1.5 Collective Reference. This corresponds to the NOMIC Perspective in which a noun can be spoken of as a generic collective. For example, the word 'dog' in the sentence *The dog is a noble beast* refers to all dogs in a collective sense, not any dog in particular. This COLLECTIVE category has its own set of personal reference affixes in Ithkuil, depending on what other entities are included in the context of the utterance.

8.1.1.6 Abstract Reference. This corresponds to the ABSTRACT perspective, equivalent to derivational abstract forms such as English nouns ending with *-hood*, *-ness*, etc. In Ithkuil, all nouns can be spoken of in this abstract sense (e.g., *"bookhood"* = the sense of being or functioning as a book), and the personal reference system provides affixes for this category whose form again depends on what other entities are included in the context of the utterance.

8.1.1.7 Obviative (4th Person) Reference. This category has no equivalent in Western languages, although it is found in various Native American languages. It refers to a third party referent other than one previously mentioned, which would otherwise be identically marked. In Native American grammatical treatises, this category is usually termed the obviative or "fourth" person. For example, the English sentence *He saw his book* is ambiguous because we are uncertain whether 'he' and 'his' refer to the same person or to two different persons (i.e., one who did the seeing and another who owns the book). In Ithkuil, no such ambiguity occurs because the latter third person referent, if a distinct person from the initial third person referent, would be marked using the OBVIATIVE, not the third person. This disambiguation of third person referents is the purpose of the OBVIATIVE. Its translation into English is therefore dependent on a preceding personal referent. (See Sec. 8.1.4 below for more information about the OBVIATIVE).

8.1.1.8 Indefinite Reference. This category indicates that the third party refers to any third party within the specified parameters. For example, the falling-toned referent **v** indicates an indefinite animate party, i.e., English 'anyone' or 'anybody,' while the high-toned referent **¯v** indicates an indefinite inanimate party, i.e., English 'anything.'

8.1.1.9 Universal Reference. This category indicates that the third party refers to every third party within the specified parameters. For example, the falling-toned referent **l** indicates a universal animate party, i.e., English 'everyone' or 'everybody,' while the high-toned referent **¯l** indicates a universal inanimate party, i.e., English 'everything.'

8.1.1.10 Impersonal Reference. This category corresponds to the German pronoun *man* or French pronoun *on*, as well as the various circumlocutions used in English to describe impersonal reference (e.g., 'one,' 'you,' 'they,' the passive voice, and certain usages of 'someone'). Such impersonal reference is illustrated in the following English sentences:

· ***One*** *should never speak to clowns alone.*
· *To dance the tango* ***you*** *need a partner.*
· ***They*** *say it never rains in August.*
· *That town* ***is said*** *to be haunted.*
· *She just wants to talk to* ***someone*** *without being criticized.*

8.1.1.11 Inclusivity vs. Exclusivity. Since Ithkuil personal reference adjuncts are designed to specify who among the speaker, addressee(s), and any third party is included or excluded in the context of the utterance, there are many possible personal reference distinctions possible in Ithkuil for which English has no equivalent pronouns. Such exacting distinctions would have to be made periphrastically in English, e.g., instead of saying 'we,' the speaker would have to specify 'the two of us,' or 'I and he but not you,' or 'I, you, and they.' Similarly, the English word 'you' breaks down into specific meanings equivalent to 'you (singular),' 'you (plural),' 'you (singular) and it,' 'you and those people,' 'you and those things,' etc.

8.1.2 Single-Referent Personal Reference Adjuncts

Adjuncts with one personal referent are termed single-referent adjuncts and have four forms: (1) a short form, (2) a long form, (3) a conjunct form, and (4) a collapsed form, as shown in Table 27 below.

Table 27: Morphological Structure of a Single-Referent Personal Reference Adjunct

Form 1 (Short Form): $C_1 + V_c$	Example: **p + oi → poi**
Form 2 (Long Form) : $C_1 + V_c + C_z + V_z$ (+ 'C_b)	Example:

	t (w/ high tone) + **i + w + u** → ¯**tiwu**
Form 3 (Conjunct Form): **C_s+V_s (+ C_s+V_s...) + C_1 + V_1 + C_z + V_z (+ ’C_b)**	Example: **f** + **o** + **t** + **eu** + **y** + **e** + **’çç** → **foteuye’çç**
Form 4 (Collapsed Form): V_{c_2} + C_1 + V_c	Example: **e** + **p** + **oi** → **epoi**

Where:

C_1 = consonant identifying Referent 1 [from Table 26 above]

V_c = vocalic infix indicating case of Referent 1[see Table 28 below]

C_z = consonantal infix showing the affiliation of Referent 1 (see Table 29 below)

V_z = vocalic suffix showing the Configuration and Essence of Referent 1 in conjunction with syllabic stress (see Table 30 below)

C_s = consonantal suffix for Referent 1 from standard suffix tables

V_s = vocalic infix showing the suffix degree and suffix type for **Cs** [see Table 24 in Sec. 7.1.2]

C_b = consonantal bias suffix (see Table 15 in Sec. 5.11.1)

Syllabic Stress = indicates essence of Referent 1: penultimate (or monosyllabic) = NRM; ultimate stress = RPV

V_{c_2} = vocalic infix indicating the case of a second instance of Referent 1. The values are the same as for **V_c**[see Table 28 below]

8.1.2.1 Short Form: Form 1, the short form of the adjunct, consists of a single consonant (labeled **C_1** in the diagram) plus falling or high tone, corresponding to one of the 44 particular referents (as described in Sec. 8.1.1 above). This is followed by a single vocalic suffix **V_c** indicating the case of the personal referent (see Chapter 4 on Case). The 96 possible values for this suffix are shown in Table 28 below in the column labeled **V_c**. Note that for Case Nos. 49 through 96, **V_c** is the same as for the first 48 cases, plus a shift in the tone of the adjunct. Those personal referents which take falling tone shift to low tone, while personal referents that take high tone shift to rising tone.

The short form of a single-referent personal reference adjunct is used when it is clear from the surrounding context of the utterance which previously identified noun participant is being referred to, so that it is unnecessary to indicate the Configuration, Affiliation, or Essence of the referent. The short form of the adjunct merely indicates the party itself and its case.

8.1.2.2 Long Form: Form 2 of the adjunct, the long form, contains an additional consonantal infix **C_z** followed by a vocalic suffix **V_z**. **C_z** indicates the referent’s affiliation, while **V_z** indicates its configuration and essence. (See Chapter 3 for an explanation of the Affiliation, Configuration, and Essence categories.) The default form of **C_z** is shown in Table 28 below in the Column labeled **V_c+C_z**.Note that for some noun cases (Nos. 18, 43-48, 56-59, and 61), the value of **V_c** changes when used with **C_z** in Form 2 of the adjunct, as shown in the table.

The long form of the adjunct is used when necessary to indicate the Configuration, Affiliation, and Essence of the referent when the surrounding sentences do not provide or make clear this information.

Table 28: Short- and Long-Form V_c (+ C_z) Suffixes/Infixes for Single-Referent Personal Reference Adjuncts (Default Forms)

(Note that due to its vocalic patterning paralleling the patterning of the CMP8C case, the VOCATIVE case is shown out of order in Position No. 48 in this table.)

Label	CASE	V_c	V_c + C_z
OBL	Oblique	**a**	**-aw-**
IND	Inducive	**u**	**-uw-**
ABS	Absolutive	**e**	**-ew-**
ERG	Ergative	**o**	**-ow-**
EFF	Effectuative	**ö**	**-öw-**
AFF	Affective	**i**	**-iw-**
DAT	Dative	**ü**	**-üw-**
INS	Instrumental	**ai**	**-aiw-**
ACT	Activative	**ei**	**-eiw-**
DER	Derivative	**ui**	**-uiw-**
SIT	Situative	**oi**	**-oiw-**
POS	Possessive	**â**	**-âw-**
PRP	Proprietive	**î**	**-îw-**
GEN	Genitive	**ê**	**-êw-**
ATT	Attributive	**ô**	**-ôw-**
PDC	Productive	**ëi**	**-ëiw-**
ITP	Interpretative	**öi**	**-öiw-**
OGN	Originative	**û**	**-aew-**
PAR	Partitive	**ia**	**iaw-**
CRS	Contrastive	**ie**	**iew-**
CPS	Compositive	**io**	**iow-**
PRD	Predicative	**iö**	**iöw-**
MED	Mediative	**ua**	**uaw-**
APL	Applicative	**ue**	**uew-**
PUR	Purposive	**uo**	**uow-**
CSD	Considerative	**uö**	**uöw-**
ESS	Essive	**ea**	**eaw-**
ASI	Assimilative	**eo**	**eow-**
FUN	Functive	**eö**	**eöw-**
TFM	Transformative	**oa**	**oaw-**
REF	Referential	**oe**	**oew-**
CLA	Classificative	**öa**	**öaw-**
CNV	Conductive	**öe**	**öew-**
IDP	Interdependent	**üa**	**üaw-**
BEN	Benefactive	**üe**	**üew-**
TSP	Transpositive	**üo**	**üow-**
CMM	Commutative	**aì**	**aìw-**
COM	Comitative	**eì**	**eìw-**
CNJ	Conjunctive	**oì**	**oìw-**
UTL	Utilitative	**uì**	**uìw-**

Label	CASE	V_c *	V_c + C_z
EXC	Exceptive	**a**	**-ay-**
AVR	Aversive	**u**	**-uy-**
CMP	Comparative	**e**	**-ey-**
SML	Simultaneitive	**o**	**-oy-**
ASS	Assessive	**ö**	**-öy-**
CNR	Concursive	**i**	**-iy-**
ACS	Accessive	**ü**	**-üy-**
DFF	Diffusive	**ai**	**-auy-**
PER	Periodic	**ei**	**-euy-**
PRO	Prolapsive	**ui**	**-iuy-**
PCV	Precursive	**oi**	**-ouy-**
PCR	Postcursive	**â**	**-ây-**
ELP	Elapsive	**î**	**-aey-**
ALP	Allapsive	**ê**	**-êy-**
INP	Interpolative	**ô**	**-ôy-**
EPS	Episodic	**ëi**	**-ëuy-**
PRL	Prolimitive	**öi**	**-öuy-**
LIM	Limitative	**û**	**-ûy-**
LOC	Locative	**ia**	**iay-**
ORI	Orientative	**ie**	**iey-**
PSV	Procursive	**io**	**ioy-**
ALL	Allative	**iö**	**iöy-**
ABL	Ablative	**ua**	**uay-**
NAV	Navigative	**ue**	**uey-**
CMP1A	Comparative1A	**uo**	**uoy-**
CMP2A	Comparative2A	**uö**	**uöy-**
CMP3A	Comparative3A	**ea**	**eay-**
CMP4A	Comparative4A	**eo**	**eoy-**
CMP5A	Comparative5A	**eö**	**eöy-**
CMP6A	Comparative6A	**oa**	**oay-**
CMP7A	Comparative7A	**oe**	**oey-**
CMP8A	Comparative8A	**öa**	**öay-**
CMP1B	Comparative1B	**öe**	**öey-**
CMP2B	Comparative2B	**üa**	**üay-**
CMP3B	Comparative3B	**üe**	**üey-**
CMP4B	Comparative4B	**üo**	**üoy-**
CMP5B	Comparative5B	**aì**	**aìy-**
CMP6B	Comparative6B	**eì**	**eìy-**
CMP7B	Comparative7B	**oì**	**oìy-**
CMP8B	Comparative8B	**uì**	**uìy-**

ABE	Abessive	**öì**	**öìw-**	CMP1C	Comparative1C	**öì**	**öìy-**
CVS	Conversive	**ëì**	**ëìw-**	CMP2C	Comparative2C	**ëì**	**ëìy-**
COR	Correlative	**au**	**aùw-**	CMP3C	Comparative3C	**au**	**aùy-**
DEP	Dependent	**eu**	**eùw-**	CMP4C	Comparative4C	**eu**	**eùy-**
PVS	Provisional	**ou**	**oùw-**	CMP5C	Comparative5C	**ou**	**oùy-**
PTL	Postulative	**iu**	**iùw-**	CMP6C	Comparative6C	**iu**	**iùy-**
CON	Concessive	**öu**	**öùw-**	CMP7C	Comparative7C	**öu**	**öùy-**
VOC	Vocative	**ëu**	**ëùw-**	CMP8C	Comparative8C	**ëu**	**ëùy-**

*** For the 48 cases in the right-hand column above: in Form 1 of a single-referent adjunct, those personal referents with falling tone shift to low tone, those with high tone shift to rising tone.**

The table above shows **Cz** in its default (CSL) form. The full values for **Cz** are shown in Table 29 below.

Table 29: Values for Cz: Affiliation of a Single-Referent Personal Reference Adjunct

	Affiliation			
	CSL	**ASO**	**VAR**	**COA**
Case Nos. 1 - 48:	**-w-**	**-'w**	**-h**	**-hw**
Case Nos. 49 - 96:	**-y-**	**-'y**	**-'**	**-'h**

The referent's Configuration are shown by the **Vz** suffix. The values of **Vz** are shown in Table 30 below.

Table 30: Values for Vz: Configuration of a Single-Referent Personal Reference Adjunct

	UNI	**DPX**	**DCT**	**AGG**	**SEG**	**CPN**	**COH**	**CST**	**MLT**
NRM Essence	**(-a)**	**-u/-i**	**-e**	**-o**	**-ö**	**-ü ***	**-ai / -au ***	**-ei /-eu ***	**-oi / -iu ***

* For the last four configurations above, these can alternately be shown using the suffixes **-a**, **-u/-i**, **-e**, and **-o** (same as the first four configurations) plus a tone shift in the adjunct, as follows: falling tone shifts to falling-rising tone, and high tone shifts to rising-falling tone. This alternate means of indicating configuration is valid only for single-referent adjuncts. For dual-referent adjuncts (see Sec. 8.1.3 below), it is inapplicable and the vocalic values shown in the above table must be used.

8.1.2.3 The Conjunct Form: Form 3 of the adjunct, the conjunct form, is the same as the long form, Form 2, with the addition of one or more consonant + vowel prefixes **Cs** + **Vs** which correspond to the **VxC** derivational suffixes from Slot XI of a formative, as described in Chapter 7. When used in Form 3 of a single-referent personal referent adjunct, the order of the vocalic and consonantal portions of the affix are reversed.

8.1.2.4 The Collapsed Form: Form 4 of the adjunct, the collapsed form, is the same as the short form, Form 1, with the addition of a vocalic prefixes **Vc2** which represents the case of a second instance of the same personal referent already indicated by the adjunct. In other words, the collapsed form is a short-cut means of representing two separate adjuncts, both of which refer to the same party, but in two different cases. Examples of such an adjunct were seen in Section 4.3.12 with the word *êto*, a short-cut for *tê* + *to*, i.e, 1m/GEN plus 1m/ERG.

8.1.2.5 Examples of Single-Referent Personal Reference Adjuncts in Use

Azbal šoi ekšíl.

STA-'anger'-NRM/DEL/M/CSL/UNI-IFL **1+2u-SIT** STA-'clown'-AFF-NRM/DEL/M/CSL/UNI-FML

Our being here angers the clown.

Ičatosk êti prâ'ol aktáil.

DYN-'physical.contact'-NRM/DEL/U/CSL/UNI-FRC$_1$/7 **GEN-1m-AFF** STA-'leg'-LOC-NRM/DEL/M/CSL/UNI-FML STA-'rock'-INS-NRM/DEL/M/CSL/UNI-FML

I got hit on the leg with a rock.

ultánḷ këi

STA-'page.of.writing'-OBL-NRM/DEL/M/SEG/COA-FML **2m-PDC**

'your book' [i.e., the one you authored]

žô c^{h}ei'as

1m+2u+ua-ATT STA-'grief'-PCR-NRM/PRX/M/CSL/UNI-IFL

'after our period of grief'

ˇxhoehwe

ua-REF-COA-CST

'according to those variously interdependent but differing networks of people'

8.1.3 Dual-Referent Personal Reference Adjuncts

Ithkuil allows a personal reference adjunct to show the personal reference category and associated case for two separate parties all in one adjunct. This is called a dual-referent adjunct and serves to combine two unrelated personal referents into one adjunct, no matter what their associated cases may be. There is only one form of a dual-referent adjunct, shown in Table 31 below.

Table 31: Morphological Structure of a Dual-Referent Personal Reference Adjunct

Form: _ ((V_W +) C_2 +) V_2 + C_K+ V_c + (C_Z + V_Z (+ ’C_b))	Example: : **u-h-ia-ks-ai-’wé-’ks**

Where:

V_W = vocalic prefix indicating the configuration of Referent 2 (see Table 32 below)

C_2 = consonant form indicating the affiliation of Referent 2 (see Table 33 below)

V_2 = vocalic prefix indicating case of Referent 2 (these values are the same as for V_c in Table 28 above)

C_K = consonant form indicating both Referent 1 and Referent 2 [from Table 34 below]

V_c = vocalic infix indicating case of Referent 1[see Table 28 above]

C_Z = consonantal infix showing the affiliation of Referent 1 (see Table 29 above)

V_Z = vocalic suffix showing the configuration of Referent 1 (see Table 30 above)

C_b = consonantal bias suffix (see Table 15 in Sec. 5.11.1)

Tone = Combinations of Ref. 1&2:_ falling + falling = falling, high + high = high, falling + high = rising, high + falling = low

Stress = shows Referents 1 and 2 Essence respectively: __penultimate = 1:NRM / 1:NRM, __ ultimate = 1:NRM / 2:RPV, antepenultimate = 1:RPV / 2:NRM, __preantepenultmate = 1:RPV / 2:RPV

Analyzing the above structure, it can be seen that the third term, **V_2**, has the same values as **V_c** for single-referent adjuncts; and the last four terms and their values, **V_c + C_Z + V_Z (+ ’C_b)**, are the same as for single-referent adjuncts. The new terms are **V_W**, **C_2**, and **C_K**, whose values are shown in the various tables below:

Table 32: Values for V_W: Configuration of Referent 2 in a Dual-Referent Personal Reference Adjunct

UNI	DPX	DCT	AGG	SEG	CPN	COH	CST	MLT
—	ö-	-e	a-	ü-	o-	e-	u-	ë-

Table 33: Values for C_2: Affiliation of Referent 2 in a Dual-Referent Personal Reference Adjunct

Affiliation			
CSL	ASO	VAR	COA
(-h)	w-	y-	hw-

Table 34: Values for C_K: Dual-Referent Personal Reference Adjunct Prefixes

Low Tone	High Tone	2nd referent→ 1st referent ↓	h	ř	ç	r	l	ň	n	m	xh	x	ţ	f	ž	v	z	š	ļ	s	p	k	t
ma	mi	**q**	q^h	gř	çq’	qr	ql	gn	qn	qm	çq^h	çq	qţ	qf	šq’	qw	sq’	šq	č’	sq	q’	g	d
1m	1+ Mx	**t**	t^h	tř	çt’	tr	tl	t’	tn	tm	çt^h	çt	dh	tf	j	tw	ż	č	c’	c	p^h	k^h	
2m	2m+Mx	**k**	tx	kř	çk’	kr	kl	k’	kn	km	çk^h	çk	kţ	kf	gž	kw	gz	kš	tļ	ks	b		
2u	2u+Mx	**p**	px	př	çp’	pr	pl	p’	pn	pm	çp^h	çp	pţ	pf	bž	pw	bz	pš	pļ	ps			
1+2m	1+2m+Mx	**s**		sř	st	sr	sl	sň	sn	sm	sxh	sx		sf		sw							
1+2u+ma	1+2u+mi	**ļ**		ļk^h	ļt^h	ļt’	ļļ	ļk’	ļt	ļp	ļq	ļk		c^h		ļw							
1+2u	1+2u+Mx	**š**		šř	çw	šr	šl	šň	šn	šm	šxh	šx	šţ	šf		šw							
1+2m+ua	1+2m+ui	**z**		sk^h	sk’	zr	zl	zg		zm	ss	sk		sp		zw							
IDa	IDi	**v**	šp^h	vř	šp’	vr	vl	dn	vn	vm	žb	zb	sţ	bm	vv								
1+2u+ua	1+2u+ui	**ž**		šk^h	šk’	žr	žl	žg	žn	žm	šš	šk	št	šp									
2u+ma	2u+mi	**f**	sp^h	fř	sp’	fr	fl	bl	br	bv	pç	ţţ	bdh										
1+ma	1+mi	**ţ**		ţř	st’	ţr	ţl	dl	dr	dv	gdh	ţk											
2m+ma	2m+mi	**x**	xx	sq^h	rr	xr	xl	gv	xn	xm	č^h												
ua	ui	**xh**	xxh	šq^h	řř	xhr	xhl	gr	xhn	xhm													
2u+ua	2u+ui	**m**	hm	mř	çm	mr	ml	ňň	mm														
1+ua	1+ui	**n**	hn	nř	çn	nr	nl	nn	NOTES:														
2m+ua	2m+ui	**ň**	hn	zn	št’	ňr	ňl	• Forms with light blue backgrounds optionally reverse form															
Ea	Ei	**l**																					

			hl	st^h	cl	ll	in non word-initial position, e.g., kr → rk
Mx	Obv	**r**	hr	št^h	cr		• Yellow backgrounds = optional changes in non word-initial position:
Col	Abt	**ç**	çç	zz			kw → fk, pw → fp, tw → ft, qw → fq, sw → zd, ļw → vd, šw → žd, sţ → nţ,
IPa	IPi	**ř**	žž				zw → vz, šţ → ndh, gn → ňg, qn → ňq, kn → ňk, pn → ňt, vn → mf, çw → xht
1+2m+ma	1+2m+mi	**h**					• Blank boxes with grey backgrounds = grammatically impermissible or no form available

Explanation of abbreviations and terms in the above table:

1 = Inclusion of speaker
2 = Inclusion of addressee
m = monadic (single party)
u = unbounded (more than one party)
a = animate 3rd party
i = inanimate 3rd party
E = universal ('everyone/everything')
Mx = mixed combination of 3rd parties (including animate+inanimate or MONADIC+UNBOUNDED)
IP = Impersonal ('one')
ID = Indefinite ('anyone/anything')
Obv = Obviative (see Sec. 8.1.1.7 below)
Col = Collective (see Sec. 8.1.1.5 below)
Abt = Abstract (see Sec. 8.1.1.6 below)

Note that when combining two referent prefixes to form the composite prefix the tones associated with each referent must also be combined (remember it is the distinction between falling and high tone that expands the 22 single-consonant referents into 44). Since all single-referent adjuncts are either of falling or high tone, their combination proceeds as follows:

falling + falling → falling

falling + high → rising

high + high → high

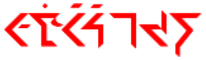
high + falling → low

The four-way combination of Essence for Referent-1 and Referent-2 respectively is shown by the four available stress patterns: penultimate stress indicates NORMAL + NORMAL, ultimate stress indicates NORMAL + REPRESENTATIVE, antepenultimate indicates REPRESENTATIVE + NORMAL, and preantepenultimate indicates REPRESENTATIVE + REPRESENTATIVE. (See Section 3.5 on Essence).

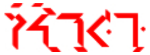
8.1.3.1 Special Use of Short Adjunct Form. The short form (Form 1) of the single-referent adjunct discussed in Sec. 8.1.2 above (utilizing the abbreviated **V**ᴄ suffix from Table 28) can be used with the special dual-referent **C**ᴋ composite prefixes from Table 34 under the following circumstance: to show that two different parties are governed by the same case and participate equally with the verb, equivalent to connecting two pronouns in English by 'and' as in *He and I went to the store* or *The man looked at them and me*. Examples: **ksau**, **ˊxlu**.

Note in the last example **ˊxlu** how the combination of a falling-toned referent and a high-toned referent combines to give a rising-toned adjunct.

8.1.3.2 Examples of Dual-Referent Adjuncts



Euspát _uda smâ'ol.
DYN-'buy'-NRM/DEL/U/CSL/UNI-FML **2:IND-Referent1:mi/Referent2:1m-1:OBL** STA-'valley'-LOC-NRM/DEL/M/CSL/UNI-IFL
I bought it in the valley.



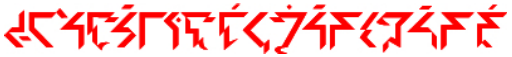
Awuçk^{h}oewi andawétļ? LISTEN
2:AGG-2:ASO-2:IND-Referent1:2m/Referent2:ua-1:REF-1:CSL-1:DPX DYN-'inquiry'-IRG-NRM/DEL/M/CSL/DCT-FML
Are those formally recognized groups of people making inquiries about the pair of you?

8.1.4 Use of the Switch Reference Suffix

In Section 7.4.13, the SWR switch reference suffix was introduced. This affix works with the OBVIATIVE personal referent (see Sec. 8.1.1.7) to specifically indicate which party is being referred to. The following is a review of this affix for all nine degrees. By use of this affix, reference can be made immediately to any party relevant to a discourse, even to a third party not previously mentioned.

-rm / -mr	SWR	Switch Reference & Obviative Specification
Degree 1	nearest preceding referent	
Degree 2	2nd to nearest preceding referent	
Degree 3	3rd party not previously mentioned	
Degree 4	referring to sentence focus	
Degree 5	first referent mentioned	
Degree 6	referring to sentence topic	
Degree 7	3rd party non-transrelative referent	
Degree 8	2nd order transrelative referent	
Degree 9	higher order transrelative referent	

This suffix rarely appears in fifth-degree, as use of the OBVIATIVE by itself defaults to the first referent mentioned. The following example illustrates the use of the switch reference suffix:



Léi'aita eqţul tê ekšüléňţ aigwamt ¯ru byû'âl mrerîwa. LISTEN
FRAMED/IFLDYN-'speak'-PCR-NRM/DEL/U/CSL/UNI STA-'brother'-IND-NRM/DEL/M/CSL/UNI-IFL 1m-GEN STA-'clown'-DAT-NRM/DEL/M/CSL/UNI-FML-TPF1/3 DYN-'run'-NRM/ICP/M/CSL/UNI-IFL OBV/IND-**[SWR/5]** STA-'pet dog'-ALL-NRM/DEL/M/CSL/UNI-IFL OBV/PRP-**SWR/3**
After my brother spoke to the clown, he [my brother] began running toward his [a third party's] pet dog.

8.1.5 Details of Personal Reference Suffixes

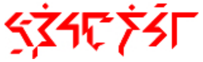
Sec. 7.3 described the existence of a group of specialized suffixes derived from personal reference adjunct consonantal affixes. As previously discussed in Sec. 8.1.1, there are 22 single consonants associated with 44 single-referent personal reference categories (based on a distinction between falling and high tone). In the absence of any other VxC suffixes to the formative, these 22 consonants can be combined with Type 3 vocalic infix patterns (see Sec. 7.2) to correspond to certain Associative and Appositive noun cases, to create short-cut substitutes for single-referent personal reference adjuncts in these nine cases. These 22 consonants correspond to the falling-toned group of personal reference affixes; this short-cut option is not available for the 22 high-toned personal reference categories. The use of these suffixes is optional. The noun cases associated with the nine suffix degrees are as follows:

Degree 1	POSSESSIVE Case
Degree 2	PROPRIETIVE Case
Degree 3	GENITIVE Case
Degree 4	ATTRIBUTIVE Case
Degree 5	ORIGINATIVE Case
Degree 6	PRODUCTIVE Case
Degree 7	INTERPRETATIVE Case
Degree 8	CORRELATIVE Case
Degree 9	CONDUCTIVE Case

8.2 ASPECTUAL ADJUNCTS

As we saw in Section 6.3.1 and Section 5.10, Aspect can be shown as the **Vs** suffix to a verbal adjunct, in addition to the its more usual position as a consonantal affix **Cs** to a formative or verbal adjunct. However, in the absence of any verbal adjunct, and as another alternative to infixing **Cs** within a formative, Aspect can also be conveyed by simply using the **Vs** affix as its own autonomous adjunct.

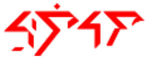
Examples (compare these to the examples in Sec. 5.10.33):



Ou inyat eqţulisqa tê.

CLM DYN-'choose'-NRM/DEL/U/CSL/UNI-IFL STA-'brother'-IND-NRM/DEL/M/CSL/UNI-DCS1/1-IFL 1M-GEN

My indecisive brother made a choice once and for all. LISTEN



Ui uolmáļ êqul.

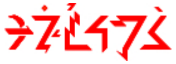
RGR DYN-'sing a song'-NRM/DEL/U/CSL/UNI-FML STA-'woman'-IND-NRM/DEL/M/CSL/UNI-IFL

The woman returned to singing. LISTEN

8.3 AFFIXUAL ADJUNCTS

Any Type-1 or Type-2 **Vx-C** formative suffix described in Chapter 7 may be removed from the formative and positioned as an adjacent adjunct for purposes of euphony (i.e., to reduce the number of syllables in the formative). Additionally, since affix categories represent common concepts generally applicable to many contexts, an affixual adjunct can also be informally used as a "short cut" method of conveying a notion, essentially as an abbreviated one-word sentence somewhat like an interjection or exclamation in English, thus conveying the concept of the affix category. For example, the affix **-V$_1$j/7** connotes disappointing typicality, but as an affixual adjunct, **oj**, it can be used by itself as an informal expression translatable by the English phrase *How typical!*

Example:



Çtar-ryo igraleiţrar aiglulôn. ⟶ Ar çtar-ryo eirţ igral aiglulôn.

HOR/CTX/PPS-PCL-HAB DYN-'eat food'-NRM/DEL/M/CSL/UNI-NA1$_1$/5-EXT$_2$/6-IFL STA-'illness'-IND-NRM/DEL/M/CSL/UNI-AGC$_2$/7-IFL ⟶

NA1$_1$/5 HOR/CTX/PPS-PCL-HAB EXT$_2$/6 DYN-'eat food'-NRM/DEL/M/CSL/UNI-IFL STA-'illness'-IND-NRM/DEL/M/CSL/UNI-AGC$_2$/7-IFL

If only the physician wouldn't always eat his food in one gulp like that. LISTEN

8.4 BIAS ADJUNCTS

Section 5.11 describes how Bias is shown on on formatives, while Section 6.3.2 describes how the category is shown on verbal adjuncts. And in Sections 8.1.2 and 8.1.3, we saw how the conjunct form of a single-referent personal reference adjunct, as well as dual-reference personal reference adjuncts, can take an optional affix, **C_b**, to indicate Bias. In the absence of these possibilities, the Bias suffix (shown in Table 15 of Sec. 5.11.1), like affixual adjuncts described above in Section 8.3, can stand alone as an autonomous adjunct. Such a Bias adjunct can be used to informally convey one's attitude toward a situation. For example, if one wishes to convey a sense of awe, one could state the Ithkuil equivalent to the sentence, *I feel a sense of awe!* or one can simply hiss out a long **s**-sound, '**ss**,' which is the intensive form of the affix for the STUPEFACTIVE bias category, whose translation can be approximated by the English expressions 'Well, I'll be!' or 'Who would've thought?!'

Other examples would be the expression '**çç**' to signify fulfillment and contentment, the equivalent to a long sigh of satisfaction 'ahhh' in English; or the expression '**kšš**' to convey contempt and disgust, similar to English 'Poppycock!' or 'What bullshit!'

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Chapter 9: Syntax

9.1 Topic, Focus and Pragmatic Relations
9.2 Morpho-Semantic Considerations
9.3 The “Carrier” Root

Syntax refers to the rules for sequencing the order of words within a phrase or sentence, including rules permitting more than one possible sequential ordering of words. To understand the following discussion of Ithkuil syntax it is necessary to have a cursory understanding of the notions of *semantic role*, *pragmatic role*, and *grammatical* (or *syntactical*) *relations*:

- **Semantic role**: This refers to the underlying semantic function of a particular word, irrespective of overt morphological category. We have already seen how Ithkuil marks its noun cases to reflect semantic roles, not grammatical relations. Such roles include Agent, Patient, Experiencer, Recipient, Instrument, etc., as previously explained in Section 4.1 et seq.

- **Pragmatic role**: This refers to the function of a word or phrase in relation to its predicate or the rest of the sentence in terms of whether and how it represents “given” versus “new” information, i.e., whether or not the word or phrase represents background information already known to the addressee, or whether it represents new information previously unknown to the addressee. Three such roles or relations are generally delineated: **topic, comment**, and **focus**. The *topic* of a sentence is the word or phrase about which the speaker has been asked or is expected by the addressee to talk about. The *comment* is the information (usually a predicate) given by the speaker about the particular topic. The term *focus* refers to whatever information in a sentence is new to the addressee, (i.e., not previously known). To illustrate these concepts, consider the sentence *I can see why Mary’s angry, but what about Bill?* (i.e., *What happened to make Bill angry, too?*). In the hypothetical answer *Bill (or He) is angry because he lost his keys*, ‘Bill’ (or ‘he’) is the topic, ‘is angry because he lost his keys’ is the comment, and ‘he lost his keys’ is the focus.

- **Grammatical** (or **syntactical**) **relations**: the arbitrary word-ordering rules of a language, irrespective of semantic or pragmatic roles, e.g., the subject of the sentence in English normally precedes the main verb and the direct object normally follows the main verb.

In general, the syntax of a language either (1) establishes the permissible grammatical relations of the language, (2) reflects and/or reinforces semantic roles, (3) reflects and/or reinforces pragmatic roles, or (4) any combination of these. As one might surmise from the above, English syntax is weighted heavily toward establishing grammatical relations at the near-total expense of identifying semantic roles. As for pragmatic roles, English rarely reflects these in its syntax (one exception is the strong tendency for placing *wh-* question words in sentence-initial position in specialized questions, even if they represent a direct object, e.g., *What have you done?* or *Who[m] are they talking about?*), however, such roles do tend to be marked "supra-segmentally" by inflection of vocal pitch and tone of voice.

We have already seen the extreme to which Ithkuil uses noun cases to mark semantic roles morphologically as opposed to syntactically. And since grammatial relations in and of themselves are relatively arbitrary within language, Ithkuil uses word order primarily to accomplish pragmatic relations, i.e., to indicate the topic and/or focus of a sentence. Additionally, Ithkuil does have a few word order constraints necessary to ensure avoidance of ambiguity in determining which nouns lie in apposition to their head, and which words of a compound sentence lie within a case-frame as opposed to outside the case-frame. The specifics of Ithkuil word order are explained in Section 9.1 below.

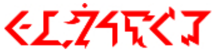
9.1 TOPIC, FOCUS, AND PRAGMATIC RELATIONS

The concept of semantic focus refers to what information in an utterance is to be considered new information, while the semantic topic is the background context already known or implied. The specifics are explained below and are best understood through various English illustrations.

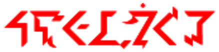
In any given discourse (i.e., a contextual series of utterances such as a conversation, a story, an account of an event, etc.), any single sentence of that discourse will likely make reference to previously mentioned material as background, as well as present new material to further the purpose of the discourse. Semantic focus refers to those elements of a sentence which constitute new material within an actual or implied discourse. For example, the sentence *My dog jumps through hoops* could function as an answer to several different questions such as 1) *What tricks can your dog do?*, or 2) *Does your dog do anything with hoops?* or 3) *Do you know of anyone's pet that jumps through hoops?* or even 4) *What's up with you?* In answering the first of these questions, 'jump through hoops' would have semantic focus while the dog is background material, i.e. the topic. In answering the second question, the verbal phrase 'jump through' would have focus while both the dog and the hoops would be the topic. In answering the third question, it would be 'my dog' that carries the focus while jumping through hoops would be the topic. Lastly, in answering the fourth sentence, no element in the sentence has focus over any other, as all elements present previously unknown material within the context of the discourse. In general, English conveys focus by a shift in vocal inflection (tone and pitch contours) to provide emphasis.

Focus does not necessarily require a full discourse to have semantic relevance; it can occur within a single autonomous sentence, in which case the background discourse is implied. For example, a person might spontaneously begin a conversation with the same sentence: *My dog jumps through hoops.* In English, the speaker might use vocal inflection to emphasize what elements convey semantic focus versus what elements are to be taken by the listener as "given." Or, the speaker might say the sentence in a neutral tone of voice, essentially inviting the listener to "choose" which elements to focus upon in responding, e.g., *Oh, you have a dog?* or *Oh, does he do any other tricks?* or *Oh, do you use metal or plastic hoops?* or an equally neutral response such as *Oh, you don't say?*

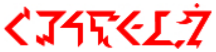
Ithkuil uses word-order to accomplish the same options that such vocal inflections accomplish in English. In Ithkuil, the element with focus is placed immediately before the verb. As for the topic of the sentence, this is shown by placing it as the first element in a sentence. If there is no overt topic or focus, the verb will appear as the first word in the sentence. Examples:



Euspîgrataì ekšúl břatļ.
DYN-[inc.stem: 'buy']-consume/ingest'-NRM/DEL/U/CSL/UNI-IFL-PRT STA-'clown'-IND-NRM/DEL/M/CSL/UNI-FML STA-'clam'-OBL-NRM/DEL/M/CSL/DCT-IFL
The clown bought some clams and consumed them. (No topic or focus) LISTEN



Ekšúl euspîgrataì břatļ.
STA-'clown'-IND-NRM/DEL/M/CSL/UNI-FML DYN-[inc.stem: 'buy']-consume/ingest'-NRM/DEL/U/CSL/UNI-IFL-PRT STA-'clam'-OBL-NRM/DEL/M/CSL/DCT-IFL
It was the clown who bought some clams and consumed them. (The clown is the focus)



Břatļ ekšúl euspîgrataì.
STA-'clam'-OBL-NRM/DEL/M/CSL/DCT-IFL STA-'clown'-IND-NRM/DEL/M/CSL/UNI-FML DYN-[inc.stem: 'buy']-consume/ingest'-NRM/DEL/U/CSL/UNI-IFL-PRT
As for the clams, it was the clown who bought and consumed them. (The clams are the topic; the clown is the focus)

9.1.1 Abbreviated Sentences Using Focus and Topicalization

Focus and topicalization allow Ithkuil, as with other languages, to provide abbreviated sentences in direct answer to commands, questions, or to comment on a topic already under discussion. Because the topic is already known within the contextual discourse, only the portion of the new sentence carrying semantic focus need be spoken. Similarly, the topicalization suffix in conjunction with the INTERROGATIVE illocution, allows for abbreviated inquiries within a known contextual discourse, similar to such abbreviated sentences in English, e.g., 'and Bill?' in lieu of the full sentence 'Comment on how this applies to Bill.'

9.1.2 Word-order within Case-Frames

Within a case-frame (see Section 5.4), the verb always appears in initial position to identify the clause as a case frame (using FRAMED Relation in the verb). Because of this, it becomes necessary to utilize the focusing and sequencing affixes from Sec. 7.4.13 to identify elements which carry focus or are topicalized within the case-frame. Additionally, the last noun within the case-frame will usually take the **-Vt'** in degree 2, 6, 7, or 9 (see Sec. 7.4.13) to signify the end of the case-frame, unless this is clear without the suffix (e.g., because the case-frame is in sentence-final position).

9.1.3 Additional Constraints in Word Order

The following additional word-order constraints exist in order to avoid potential ambiguity or semantic incoherence.

- Nouns in Possessive and Associative cases (see Secs. 4.4 and 4.5) which are dependent on, or in apposition to a "head" noun, must immediately precede or follow that head noun, unless the relationship between

- A case-frame cannot be broken apart into segments within a main sentence, i.e., the case-frame must constitute a single cohesive clause and not contain elements of the main clause within it. It is possible to "nest" a second case-frame within a case-frame, similar to the way in which subordinate or relative clauses can be nested in English and other Western languages, e.g., *[Despite owning a Picasso [that comes from his Blue period] [of which I, [a mere student,] am fond,]] Joe is actually a very humble person*.

9.1.4 Phonotactically-Induced Syntactic Modifications

As mentioned above, word-order can shift in an Ithkuil sentence to accommodate phonotactic or phonaesthetic ends, i.e., for purposes of euphony. This is because suffixes on a formative, as well as morphemes associated with categories of Aspect and Bias and can be moved to verbal adjuncts or transformed into autonomous adjuncts (see Sections 6.3, 8.2, 8.3, and 8.4). As words of six syllables or more are generally undesirable, any formative with numerous affixes is potentially subject to having several of its morphemes redistributed to adjuncts.

Example:

Ar-ryigrawileiţrar aiglulôn. ⟶ Çtar-rya eirţ igralar aiglulôn.

MNO-PCL-DYN-'eat food'-HOR/FAC-NRM/DEL/M/CSL/UNI-NA1$_1$/5-EXT$_2$/6-IFL STA-'illness'-IND-NRM/DEL/M/CSL/UNI-AGC$_2$/7-IFL ⟶

HOR/PPS/CTX-PCL EXT$_2$/6 DYN-'eat food'-NRM/DEL/M/CSL/UNI-NA1$_1$/5-IFL STA-'illness'-IND-NRM/DEL/M/CSL/UNI-AGC$_2$/7-IFL

If only the physician wouldn't eat his food in one gulp like that.

When ordering such phonaesthetically-induced adjuncts, it is important that they can be easily associated with the formative to which they apply. Generally, this means that they will be adjacent to the formative, or occur on either side of other adjuncts associated with the formative.

9.1.5 Iconicity

English and other languages generally display phrase-structure patterns and word-order patterns which reinforce, or even reflect, a cognitive understanding of what is being described, i.e., the order of the words themselves reflects information about how we are to understand the utterance. Such a phenomenon is known as **iconicity**. In English and other Western languages, the most common way in which iconicity is manifested is what is termed "sequential order iconicity," the idea that the actual sequential order of words in a phrase or sentence reflects the sequential order of the events they describe. For example, the phrases 'eye it, try it, buy it,' 'I came, I saw, I conquered,' or 'dine and dash' describe sequential events where the sequence of the words reflect the sequence of the events. What is most important is that re-ordering of the words either changes the meaning of the phrase or leads to semantic nonsense, e.g., 'buy it, eye it, try it' implies that a different sequence of events actually takes place than 'eye it, try it, buy it.' This can be more dramatically illustrated with the following pair of sentences.

1) *Jane got married and had a baby.*
2) *Jane had a baby and got married.*

In English, the ambiguous word 'and' is interpreted as connecting a sequence of events, i.e., 'and' is interpreted to mean sequential 'then' (= 'and following that,' 'then next' or 'then later'). As a result, the meanings of the two sentences imply very different social interpretations about Jane.

Besides the reflection of sequential order, other types of word-order iconicity are possible. For example, compare the subtle difference in meaning between the following two sentences:

3) *Sam painted the fence white.*
4) *Sam painted the white fence.*

In the first sentence, we do not know what color the fence was prior to being painted, or even if it was a new fence that had never been painted before. In the second sentence, not only do we know what color the fence had been, but also that it was not previously unpainted, however, we do not necessarily know what its new color is. This sort of iconicity is used to convey a resultative state of affairs, i.e., by placing the adjective 'white' after the word 'fence' (seemingly in violation of the usual adjective-before-noun word order used in English), we describe a resulting state of affairs.

Yet another type of word-order iconicity is displayed in comparing the following two sentences.

5) *Loretta gave Sue a wedding gift.*
6) *Loretta gave a wedding gift to Sue.*

Most grammar textbooks would state that these two sentences are semantically equivalent, the first employing a "ditransitive" pattern (i.e., juxtaposing an indirect object 'Sue' with a direct object 'wedding gift'), while the second uses a "complement" pattern in which the indirect object follows the direct object and is changed to a prepositional phrase using 'to.' However, there is a subtle semantic distinction between the two sentences. The first strongly implies that the wedding gift is for Sue, i.e., Sue is the bride and intended recipient. The second sentence, however, invites the possibility that Sue is only a temporary or circumstantial goal for the act of giving, but not the bride and intended recipient. For example, if Sue is merely a guest at the wedding and Loretta needed Sue's help carrying an armload of wedding gifts, she might give a wedding gift *to Sue*, but that does not mean she would *give Sue* a wedding gift. This type of iconicity distinguishing a recipient from a directional goal is an example of what is termed "distance iconicity," because the two linked words are made more "distant" from each other in the sentence as a reflection of their more circumstantial association.

Ithkuil does not display iconicity. While the order of words in an Ithkuil phrase or sentence may coincidentally reflect a temporal or causative sequence of events, this is not by syntactic design. Because of the myriad means available in Ithkuil to morphologically distinguish sequence, cause-and-effect, resulting states, and the distinction of recipients from directional goals, no iconicity patterns are required.

For example, we saw in sentences (1) and (2) above how English 'and' can be used to convey not just mere coordination, but also a sequencing function. In Sections 7.4.3 and 7.4.4, we saw that Ithkuil has no less than thirty-six suffixes (four suffix categories, each with nine different degrees) which convey various coordinative and sequencing patterns with great specificity. Thus, Ithkuil has no morpheme directly equivalent to the ambiguous English word 'and.' There is an affix corresponding to 'and' in its use as a mere additive listing device (e.g., 'pears and apples and bananas'), another corresponding to its use as an indicator of simultaneity (e.g., *I clenched my fists and scowled*), another corresponding to its use as an indicator of additional information (e.g., *The clown likes children and loves to eat*), another to its use as an indicator of parallel description or activity (e.g., *We went dancing and so did they*), and yet another as a temporal sequencing indicator (e.g., *I went to the window and looked out*).

9.2 MORPHO-SEMANTIC CONSIDERATIONS

It should be noted that when structuring an Ithkuil sentence, particularly when translating from other languages such as English, care must be given to avoid capturing irrelevant semantic information reflected by the morphology of the source language and trying to find an equivalent or parallel way to reflect those irrelevancies in the Ithkuil sentence. This can have a profound effect on the morpho-syntactical structure of the resulting Ithkuil sentence.

9.2.1 Arbitrary Delineations of Perspective or Point of View

One area where word-choice in English and other Western languages arbitrarily affects sentence structure is in the unintentional schematicization of a particular perspective or point of view. For example, consider the following pair of sentences in English.

1) *The path climbs steeply out of the canyon.*
2) *The path descends steeply into the canyon.*

Both of these sentences are describing the same property of the path — its steepness. The distinction in the sentences comes from the point of view being reflected by the speaker. In sentence (1) the implied point of view is from the bottom of the canyon upward, while in sentence (2) the viewpoint is from the top of the canyon downward. What is important is that, semantically, the point of view is of no relevance to the steepness of the path *per se*. So if the cognitive intent of the utterance is simply to describe the vertical gradient of the path within the canyon, there would be only one Ithkuil translation for both of these sentences, eschewing the point of view entirely and restating the sentence to read:

Ûb eikkradwa smou'olâxh.
EXN$_1$/6 DYN-'move.along.obliquely.vertical.path.between.two.points'-RPV/PRX/N/CSL/UNI-IFL STA-'valley'-NAV-NRM/DEL/M/CSL/UNI-SCO$_2$/5-IFL
The path through the canyon is steep. LISTEN

9.2.2 Masking of Semantic or Participatory Roles

Similarly, care must be made, when comparing Ithkuil sentence structure with other languages, to note that Ithkuil grammar allows for a more overt reflection of the underlying semantic roles inherent in a given sentence. As a result, sentence structures in Western languages which "mask" potentially anomalous semantic structures are avoided in Ithkuil. For example, compare the following pairs of sentences.

3a) *He supplied a report to the analyst.*
3b) *He supplied the analyst a report.*
4a) *She applied a solvent to the stain.*
4b) **She applied the stain a solvent.*

The syntactical patterns of these two pairs of sentences are identical, yet the word-order in sentence (4b) is ungrammatical (as indicated by the asterisk), while the same word-order in sentence (3b) presents no problem. The underlying reason for the difference is one of semantic role. While 'analysts' can function in the role of Recipients, 'stains' cannot (they are merely directional Goals, i.e., where the solvent gets applied). Cognitively, stains cannot "possess" a solvent the way analysts can "possess" a report. In Ithkuil, the semantic roles would be clearly defined by the case-markings of the participants. Therefore, syntactically inconsistent pairs such as (3b) and (4b) do not occur.

Sometimes, rather than semantic role, it is a participant's relationship to an underlying clause that presents the problem. For example, *He's a tall president* means 'He's a president who is tall.' So why doesn't *He's a likely president* mean '*He's a president who is likely'? The reason is that, while 'tall' describes its adjacent referent 'president,' 'likely' does not describe its adjacent referent. Rather, 'likely' describes an underlying process in which that referent is or will be engaged, i.e., 'running for president.' Therefore, while these two sentences are morpho-syntactically identical in English, their Ithkuil translations are quite different from one another morpho-syntactically:

Qi alkaţeins eádrai'seumi.
ma-AFF STA-'height'-NRM/DEL/N/CSL/UNI-PTT$_2$/6-IFL MNF-FRAMED/FML-'preside/govern'-COR-NRM/PRX/M/CSL/UNI-ROL$_2$/4-FNC
He's a tall president.
[literally: *There is much height to him who formally presides.*] LISTEN

Qa eadramtôçqeumí.
ma-OBL MNF-'preside/govern'-NRM/ICP/M/CSL/UNI-PRB$_2$/7-ROL$_2$/4-FNC-FML
He's a likely president.
[literally: *He is one who probably will begin to formally preside.*] LISTEN

9.2.3 Negation

Negation is another morpho-semantic area where translation from English or other Western languages can be tricky. Consider the English sentence *Shelly doesn't think they like her cooking*. Note this sentence does not mean what a literal word-for-word analysis implies, i.e., 'That they like her cooking is not something that Shelly is thinking.' Rather, the correct meaning is 'Shelly thinks that they don't like her cooking.' Ithkuil is very precise in specifying exactly what components of a sentence are to be negated. Use of the four affirmation/negation affixes from Section 7.4.9 in conjunction with a formative carries very specific information as to what morphological components of a sentence are being affirmed or negated and to what degree. Using these four affixes alone, Ithkuil can distinguish between the following four sentences without any syntactic rearrangement of the words:

I don't want to begin singing.

I'm beginning to not want to sing.

I want to not begin singing.

I'm beginning to want to not sing.

Thus when translating negative sentences into Ithkuil, care must be taken to not syntactically "rearrange" a sentence as with *Shelly doesn't think they like her cooking*. Additionally, Ithkuil makes a morpho-semantic distinction not found in Western languages: the difference between **absolute negation** and **relative negation**. Absolute negation implies that the non-existence or non-occurrence of an entity, state, or event is due to contextual inapplicability, while relative negation indicates that the non-existence or non-occurrence is circumstantial. This distinction is illustrated in the two sentences below:

Ilmaţár êqeil.
DYN-'sing'-NRM/DEL/N/CSL/UNI-**NA1$_1$/5**-FML STA-'girl'-ACT-NRM/DEL/M/CSL/UNI-IFL
The woman doesn't sing [even though she can, i.e., she chooses not to].

Ilmàţîr êqeil.
DYN-‘sing’-NRM/DEL/N/CSL/UNI-**NA1$_1$/4**-FML STA-‘girl’-ACT-NRM/DEL/M/CSL/UNI-IFL
The woman doesn’t sing [because she can’t, i.e., she is mute].

9.3 THE “CARRIER” ROOT

Since the Ithkuil declensional and conjugational system is based on predictable multi-level patterns of consonant and vowel mutation, proper nouns such as personal and place names, as well as non-Ithkuil words from other languages are by nature morpho-phonologically incompatible with such as system. Nevertheless, such words can be declined or conjugated like any other Ithkuil formative by means of the “carrier” root **-p-**. In addition to this use, the carrier root is employed in certain other contexts as well, as described below.

9.3.1 Words that Cannot Take Affixes or Be Mutated

The three primary stems of the carrier root, **(a)p-, ep-, up-**, are respectively associated with animate beings (the two complementary derivatives **op-** and **âp-** being humans versus non-humans or figuratively/metaphorically animate entities); inanimate entities (the two complementary derivatives **öp-** and **êp-** being objectively concrete entities versus subjective entities such as thoughts, emotions, sensations, etc.); and finally intangible abstract referents (the two complementary derivatives **îp-/ûp-** and **ôp-** being place names and abstractions). The carrier stem is placed immediately before the proper noun or foreign word or phrase, then declined or conjugated normally for any desired morphological categories, even verbal categories. The proper noun or foreign word or phrase itself is left unchanged.

9.3.2 Emphasizing or Highlighting a Particular Category

Another use of the carrier root is to emphasize or topicalize a particular affix or grammatical element associated with a word. For example, in English we can say ‘a *big* house’ with extra intonation on the word ‘big’ to emphasize that word. To accomplish such emphasis in Ithkuil, the carrier root is used with the augmentative suffix in conjunction with the noun ‘house’ as opposed to simply using the augmentative suffix on the stem for ‘house.’ No change in vocal pitch or intonation is required, as the grammatically unnecessary use of the carrier root serves to accomplish the required emphasis. Any morphological category manifested by a carrier root rather than an adjunct or mutation serves to emphasize that category. (It should be noted that the use of optional combination and euphonic adjuncts do not accomplish such emphasis. Their use versus non-use imparts no difference in emphasis for the particular morphological categories contained in the adjunct.)

9.3.3 Titles of Address

It should be noted that the use of the carrier root in front of the names of persons serves to function as a title of address corresponding to English *Mister*, Ms. or *Miss*. There is no distinction of gender or marital status conveyed by the term.

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Ithkuil: A Philosophical Design for a Hypothetical Language

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Chapter 10: Lexico-Semantics

10.1 Systemic Morphological Derivation
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The term **lexico-semantics** refers to the relationship between the lexicon of a language (i.e., its root-words and word-stems) and the various possible semantic categories created by the human mind. Every language (and particularly every language family) divides the world up differently in terms of what sorts of concepts are made into words and how the meanings of those words reflect the reality around us. In other words, the lexico-semantics of a language answers the questions *what semantic concepts does this language psycho-linguistically categorize into autonomous words and how are each of these categories internally organized?*

Lexico-semantics is extremely important in Ithkuil for two related reasons:

1) Ithkuil morpho-phonology only allows for 3600 possible root words, as explained in Chapter 2. This means that the concepts chosen to be conveyed by these roots must be carefully selected to insure the widest range of conceptualization possible within such a limited framework.

2) We have seen throughout this work how Ithkuil’s matrix-like grammatical structure allows for an incredible amount of synergy in terms of morphological word-derivation, generating wholly new, emergent concepts from word-roots, not simply mere conjugations, declensions, and transparent derivations. In order to ensure the maximum amount of dynamism in deriving new concepts morphologically from existing word-roots, it is important that those initial roots be carefully selected in terms of meaning.

In this chapter, we will examine the many considerations that go in to the assigning of concepts to those 3600 roots, in order to optimally accomplish what has been demonstrated throughout this work: using the dynamics of Ithkuil morphology to eliminate the need for the hundred thousand or more autonomous word roots of natural languages, or to put it colloquially, “getting the most lexico-semantic bang for the morpho-phonological buck.”

We will start first with a review of key components in the systemic design of Ithkuil morphology. This will be followed by sections on those areas of Ithkuil lexico-semantics which are most profoundly distinct from Western languages.

The last section deals with comparison to Western categorizations, examining how Ithkuil lexico-semantics reinterprets certain concepts considered “fundamental” in English and other Western languages.

Note on Ithkuil's Implicit “Theory of Meaning”

For those readers who may be trained in linguistics, particulary cognitive linguistics, it should be noted that at this point in the author’s development of the language, a traditional Enlightenment-based theory of meaning, assuming a one-to-one correspondence between a lexeme and its external “in-the-world” referent, has been implicitly assumed for convenience and/or expediency’s sake. A more careful and rigourous construction for Ithkuil’s lexico-semantics, given the author’s stated design goals (as described in the Introduction section), would not assume such a theory of meaning, but would rather incorporate more recent findings of cognitive science and cognitive linguistics to reflect embodied meaning and metaphor-based conceptualization. However, pursuing such a foundation for the lexico-semantics of the language would, in the author’s opinion, be extremely time-consuming (on the order of many additional years, perhaps decades, to construct). Rather than withdraw the language from public availability for such reasons, the author has chosen instead to adopt a traditional/formalist foundation for its lexico-semantics essentially out of convenience, in order to be able to showcase the language's morphology.

10.1 SYSTEMIC MORPHOLOGICAL DERIVATION

Ithkuil systematically uses its myriad of morphological categories to derive secondary concepts from more basic concepts, often eliminating the need for separate lexicalization, i.e., eliminating the need to create separate word-roots for new but related concepts as is so often the case in Western languages. We will explore this system of morphological derivation more closely, particularly in regard to its universality across the spectrum of Ithkuil word-roots.

10.1.1 Stem Derivation from Roots

We have already seen many applied examples of the above-described concepts, particularly in Section 2.3 et seq. regarding the use of the three different **Vr** vowel patterns to derive a trinary array of interrelated stems from a root, as well as shifting the Vr vowel of those trinary stems to in turn derive two separate arrays of complementary stems from the initial holistic array of stems. Through this system of vowel shifts, we saw how a single root generates no less than eighteen formative stems, each functioning as a noun or verb. This is illustrated below using the example root **-k-**‘TRANSLATIVE MOTION’.

-K- ‘TRANSLATIVE MOTION’	
INFORMAL Designation	FORMAL Designation
1. **ak-** move/motion from one place to another	1. **aká-** travel/traverse; journey
2. **ek-** set in motion/self-directed movement from one place to another	2. **eká-** set off for/journey to/directed travel toward
3. **uk-** move/movement between one place and another (i.e., along line between two points)	3. **uká-** travel/journey along way between two places

COMPLEMENTARY STEMS		COMPLEMENTARY STEMS	
1. **ok**- go = movement outward/away	1. **âk**- come = movement inward/toward	1. **oká**- go traveling, be off	1. **âká**- journey to(ward)
2. **ök**- go away/move away = increase distance from a starting point	2. **êk**- come toward/to close the distance = decrease distance toward endpoint	2. **öká**- travel/journey further away from starting point	2. **êká**- reach vicinity of, close in on destination
3. **îk/ûk**- leave/depart = move away from one point towards another	3. **ôk**- approach = approach one point from direction of another	3. **îká/ûká**- depart/departure from starting point on journey toward elsewhere	3. **ôká**- arrive/arrival, reach destination

As described in Chapter 2, this hierarchical pattern of stem derivation and division into complementary stems from a more basic or underlying "holistic" stem allows for significant collapsing in the number of word-roots necessary compared to Western languages, as words that are semantically interrelated in a hierarchical or complementary fashion can be derived morphologically from a basic root, as opposed to being assigned separate word-roots as in other languages. The above root **-k-** demonstrates how concepts such *come* versus *go* are expressed as complementary derivations of a single underlying concept TRANSLATIVE MOTION. All such complementary stems based on participant perspective are similarly patterned, e.g., *lead/follow, buy/sell, give/take*, etc.

Additionally, this hierarchical structure of stem derivation from a single root using vocalic infixes allows for the creation of "built-in" classification schemes and taxonomies for concepts which require them. Biological taxonomies, for example, can be easily accommodated under this scheme, first dividing the two Forms (Designations) of the root into the animal itself versus the animal as a resource, the holistic stems indicating first the generic species then male versus female. The complementary stems then make the further distinction between wild versus domesticated for the informal stem and between food/prey and derived or processed products for the formal stem.

Using the nine degrees of the Stem Specific Derivative **SSD** suffix **-k** from Section 7.4.13 on such a root, we can extend this scheme to denote specific parts, products or derived resources such as a the milk, oil, meat, skin or hide, tail, tusk or horn, hair or fur (e.g., wool), etc. The Degree of Maturity **MAT** suffix **-p^{h}** from Section 7.4.10 is also applied to indicate the developmental stage of the animal, providing derived equivalents to words such as *foal, fawn, lamb* or *cub*, from *horse, deer, goat,* or *lion*.

10.1.2 The Use of Derivational Suffixes

In Chapter 7, we saw how many of the approximately 200 suffix categories can be used to generate both derivative concepts as well as amalgamated gestalts carrying a new holistic meaning. As an example, here are only ten of the various new concepts which can be derived through affixes from the stem **el**- 'say something [i.e., communicate a verbal message]':

elalaiq'	*'share a secret'*	suffix = DSR$_{2}$/8
elalêpţ	*'news'*	suffix = ATC$_{2}$/3
elalâxh	*'quip'*	suffix = SCO$_{2}$/5
elaluiq	*'praise, adulation'*	suffix = NTR$_{2}$/9
elalôpt	*'lie' [= tell a lie]*	suffix = REA$_{2}$/7
elalainţ	*'shout out a message'*	suffix = STR$_{2}$/8
elalên	*'persuasive person, a persuader'*	suffix = AGC$_{2}$/3
elalôn	*'liaison, a go-between'*	suffix = AGC$_{2}$/7
elaliuçaukç	*'whisper sweet nothings'*	suffixes = AFT$_{2}$/1 + FRC$_{2}$/2
elaliucêps	*'cuss, curse'*	suffixes = UNQ $_{2}$/1 + MTA $_{2}$/3

Similarly the use of the Consent **CNS** suffix, the Reason **RSN** suffix, the Expectation **XPT** suffix, the Deliberateness **DLB** suffix, the Enablement **ENB** suffix, the Agency/Intent **AGN** suffix, and the Impact **IMP** suffix from Section 7.4.12 in conjunction w/ Transrelative cases (Sec. 4.3), provides a means for describing extremely subtle scenarios of causation, willingness, enablement, hindrance, etc. which other languages can only capture via long-winded paraphrase. Employing this array of affixes and cases, a sentence such as *The singer stopped the boys from playing around* can be translated into Ithkuil in many syntactically equivalent (but morphologically distinct) ways to indicate whether the singer used physical force or persuasion to stop the boys, whether she stopped them via an indirect enabling means (such as turning out the lights), or whether it was the boys themselves who stopped upon hearing her voice or seeing her beauty, or even by her mere presence interrupting them (such as walking in on them inadvertently), as well as the degree of willingness or consent with which they stopped. The following example sentence further illustrates the complex detail which these suffixes make possible:

Ôqölŏňtauspûls êļnelôzra iaçtaxhtiamsíţ.

STA-'man'-EFF-NRM/DEL/M/CSL/UNI-**XPT$_{1}$/2-DLB$_{2}$/2-ENB$_{1}$/6**-IFL STA-'bird'-ABS-NRM/DEL/M/CSL/UNI-**IMP$_{2}$/7**-IFL DYN-'room'-NRM/DEL/U/COA/CST-**AGN$_{2}$/9-DEV$_{1}$/1**-FML

Aided by the bird's own stupidity, the man unexpectedly and accidentally killed it without even realizing he'd done so, by inadvertently letting it out of the house.

The DEV suffix from Sec. 7.4.9, in first degree, roughly corresponds to the reversive prefixes of English such as 'un-,' 'de-,' and 'dis-' to indicate the undoing or opposite of a word. However, in Ithkuil this suffix is productive for all semantically applicable stems and operates in conjunction with Modality (Section 6.1) and the Modality suffixes from Section 7.4.11 to extend the system of modalities, as illustrated by the following:

promise to + **DEV/1** = *foreswear, vow never to*
can (know how to) + **DEV/1** = *be ignorant of*
decide to + **DEV/1** = *avoid*
offer to + **DEV/1** = *refuse to*
agree upon/to + **DEV/1** = *decline to/abstain from*
like to + **DEV/1** = *loathe*

fear to + **DEV/1** = *love to*
need to + **DEV/1** = *dispensable, unnecessary to, can dispense with*

10.1.3 The Use of Configuration, Affiliation, and Context

Each of these categories has means to generate amalgamate, holistic, or emergent concepts from a more basic underlying stem.

10.1.3.1 Configuration: In Sec. 3.1 we saw how applying each of the nine Configuration categories to a stem often generates forms based on amalgamation of sets which require complete relexification when translated into English. Examples are:

bone → skeleton
strut/girder → frame → framework
component → structure → system
ingredient → compound
food → dish → meal
tool → toolset
do/perform → coordinate
vehicle → convoy
person → group → crowd → masses
activity → process.

10.1.3.2 Affiliation: In Sec. 3.2 we saw how the four Affiliations can generate new concepts based on delineations of purpose, benefit, or function. Examples include:

group → team,
grove → orchard
assortment → collection → junk
process → plan

10.1.3.3 Context: In Sec. 3.6.4 we encountered the AMALGAMATE context, which serves to identify a stem specifically as a gestalt entity, composed of objective and subjective/social elements or components which contribute to the overall nature of the stem. Depending on the stem to which it is applied, the use of the amalgamate can cause relexification in translating to English. Examples:

demeanor → personality
craftsmanship → artistry
career → livelihood
(one's) past → (one's) life
to look after/tend → nurture

10.1.4 The Use of Designation and Version

In Section 3.7 on Designation as well as Section 5.8 on Version, we saw how both of these morphological categories create distinctions in word-stems which usually require relexification in translation. The following word pairs illustrate such relexification:

(the) past → history
writings → literature
wordplay → rhetoric
behavior → demeanor
wander → travel
eat → dine
containment → storage

see → observe
one → single/singular
hear → listen
desire → request
query → research
ponder → analyze
path → route

Again we see that application of morphological categories to word-stems serves to generate forms which substitute for lexical distinctions in other languages, thus helping to reduce the size of the Ithkuil lexicon.

10.1.5 The Use of Phase and Extension

The use of the nine Phases, as explained in Sec. 5.5, used in conjunction with the category of Extension (Sec. 3.4) gives rise to an elaborate means by which to describe phenomena in terms of duration, periodicity, repetition, iterativity, and cyclic phenomena. When used in conjunction with the twelve Modulative suffixes from Sec. 7.4.7, the Iteration **ITN** and Repetition **RPN** suffixes from Sec. 7.4.5 and the Intensity **ITY** suffix from Sec. 7.4.10, Phase becomes an extremely powerful means to describe with great subtlety all phenomena which display vibratory, oscillative, wavering, on-off, or variative movement, motion, or intensity. As an example, specific application of the various phases combined with the aforementioned suffixes and other suffix categories to a single stem **-nt-** '[make] sound' can give rise to translations for all of the following English words:

acoustic
audible
auditory
bang
blast
boom
buzz
cacophony
calm
click
clickety-clack
clink
crack
crackle
crash
din
discord
dissonance
drone
echo
explosion

faint sound
fizz
gag
grate
hiss
howl
hullabaloo
hum
hush
jangle
kerplunk
knock
loud(ness)
lull
moan
muffle
murmur
mute
noise
pandemonium
peal

pit-a-pat
plink
pop
quaver
quiet
racket
rap
rat-a-tat
rattle
raucous
resonant
reverberate
ring
roar
rumble
rush of sound
rustle
screech
shrill
silence
snap

sonorous
sound
staccato
stifle
strident
stutter
swirl
swish
tap
thump
tick
toot
twang
uproar
vibration
whir
whistle
whiz
whoosh

The same principles applied to other types of stems give rise to a plethora of complex and subtle means for describing motions, paths, trajectories, movement in situ, light emanation, reflection, consistency, texture, variation in shape, visual complexity, etc.

10.1.6 Note on the Absence of Lexico-Semantic "Classes"

It should be noted that in previous versions of the language, formative roots were divided into lexico-semantic "classes" designated by the phonological patterning of the root (there were 17 such classes in the original version of Ithkuil, ten such classes in Ilaksh). In the current version of the language, these lexico-semantic classes have been eliminated, as the author has realized that the establishment of such classes does not serve any real functional purpose in "real-world" spoken/written contexts; the ability to identify the semantic class of a stem does not sufficiently aid in understanding the stem's specific meaning. Therefore, the assignment of phoneme patterns to roots in Ithkuil is now arbitrary. While the astute reader will note that many roots pertaining to a specific semantic notion (e.g., animals, plant and substance taxonomies, spatial position, etc.) still have similar phonological patterning, such patterning is nevertheless merely incidental and is without formal significance.

10.2 DIMENSIONAL AND DESCRIPTIVE OPPOSITIONS

Another area of the lexicon where Western languages tend to divide up reality into binary oppositions is the realm of spatial dimensions, where pairs such as *near/far, small/large, thin/thick, narrow/wide, tall/short, light/heavy, hot/cold*, etc. are commonplace. As with the perspective-based oppositions seen in the preceding section, again Ithkuil lexico-semantics treats such concepts in a wholly different way. Rather than lexicalize such concepts as pairs of binary oppositions, Ithkuil delineates these qualities as *varying points along a continuous range*. In other words, in Ithkuil you do not say *X is cold* and *Y is hot*, but rather *X has less temperature* and *Y has greater temperature*. Similarly, one does not say *A is near to me* and *B is far from me,* but rather *the distance from me to A* (or proximity of A to me) *is less than the distance from me to B* (or proximity of B to me). Note that the choice of translation for the latter stem as either 'distance' or 'proximity' becomes arbitrary, as the real meaning of the Ithkuil formative is 'amount of linear space separating one party from another.' Virtually all Western descriptive and dimensional oppositions are similarly handled in Ithkuil as mere variance in the quantity of a single quality, the degree of an attribute, or the extent along a spatio-temporal range or continuum.

10.3 SPATIAL POSITION AND ORIENTATION

Concepts of spatial position and orientation are expressed very differently in Ithkuil as compared to Western languages such as English. The three major differences are explained below, each of which will be explored in detail in the sections which follow.

1) Ithkuil does not employ prepositions; all notions of spatial relationships, position, and orientation are designated by nominal/verbal formatives.

2) While Western languages allow spatial/positional reference to function autonomously irrespective of the speaker's cognitive or semantic intent, Ithkuil subordinates spatial/positional reference at the lexico-semantic level in deference to the cognitive or semantic purpose of an utterance. What this means is that sentences describing spatial relationships or positional reference are only used when the underlying intent of the speaker's utterance is purely to specify spatial or positional reference information. If, in fact, the underlying intent of the utterance is to show some functional or purposeful relationship (where a spatial relationship is merely coincidental or consequential), the Ithkuil sentence will describe this function or purpose, not the spatial relationship. For example, in answer to the question *Where's Billy?* an English speaker might give answers such as (a) *He's standing right next to Sam*, or (b) *He's in bed*, or (c) *He's in the bathtub*. While each of these sentences gives spatial information, only the first is truly intended to convey spatial information as its purpose, while sentences (b) and (c) imply information that is, in fact, more relevant than the spatial information given, e.g., sentence (b) could be restated as 'He's sleeping (or sick),' while sentence (c) could be restated as 'He's bathing.' An Ithkuil speaker would not utter sentences like (b) or (c) in answer to the query about Billy, since he/she would assume the question *Where's Billy?* is intended to inquire only about Billy's physical position in absolute space. If the questioner had, in fact, been seeking non-spatial information, he/she would have asked the Ithkuil equivalent of *What's Billy doing?* or *What's happening with Billy?* to which a Ithkuil speaker would answer with sentences corresponding to the rephrased versions of (b) or (c), not their original versions.

3) Ithkuil utilizes an absolute coordinate system of comparative spacial reference, not a relative one as found in most languages. Note the positional ambiguity inherent in sentences such as *He's standing to the left of the desk*. To be meaningful, the listener must first determine from whose perspective the speaker is referring (i.e., do we mean the speaker's left, the addressee's left, the desk's left relative to the position of the speaker, the desk's left relative to the position of the addressee, or the desk's left relative to the direction the desk is oriented/facing?) Such ambiguity occurs because Western languages employ a relative coordinate system which can shift from one participant or referent object to another. Ithkuil spatial reference employs an absolute coordinate system independent of the perspective of a participant (e.g., the speaker or addressee) or referent object (i.e., the thing(s) whose position is being described), as opposed to the relative coordinate system found in Western languages. The Ithkuil system allows listeners to understand exactly the spatial relationship and orientation of any object(s) in absolute space, irrespective of anyone's (or anything's) personal perspective.

10.3.1 Formatives vs. Prepositions

Besides lexically "partitioning" the world of two- and three-dimensional space in different ways than in Western languages, Ithkuil has no prepositions. Rather, Ithkuil utilizes formatives which describe a spatial relationship between two objects or between an object and an associated background, the nearest translations being a noun meaning "the area X" or a verb meaning "to be positioned X", where X corresponds to a Western preposition or positional adverb such as "in" or "inside."

10.3.2 Underlying Cognitive Purpose of an Utterance

Ithkuil grammar considers the functional relationship between two objects to be primarily relevant, not their spatial orientation or position relative to each other (or between an object and its background). When it comes to describing an object against a background or the relationship between two objects, Ithkuil grammar is more interested in answering the question *How do X and Y function relative to each other*, rather than *How are X and Y positioned in space relative to each other?*

For example: in uttering the English sentence *The vase is on the table*, is the intention of the sentence to tell the listener the physical coordinate position of the vase in 3-D space relative to the table, or to tell the listener that the vase is being physically supported (i.e., against gravity) by the table? If the intention is the former, the corresponding Ithkuil sentence would indeed utilize a spatial formative translatable as 'manifest self on the top side of a surface that is horizontal relative to the direction of gravity.' However, if the intention is to actually indicate support against gravity, the Ithkuil sentence would not utilize a spatial reference at all, but rather translate the sentence more or less as *The table is supporting the vase*. As a result, spatial, locative, or orientational formatives in Ithkuil are used far less often than corresponding prepositions and spatial constructions in English or other Western languages. Note the following examples illustrating how various English sentences utilizing the concept 'in' (meaning 'inside' or 'into') are translated into Ithkuil using various non-spatial roots based on reason or purpose.

ENGLISH SENTENCE	**CONCEPT CORRESPONDING TO 'IN(SIDE or INTO)'**	**NEAREST TRANSLATION TO Ithkuil EQUIVALENT**
The man works in(side) that building.	general locational reference where idea of interiority or containment is incidental	*The man works at that building.*
The book is in that box.	physical containment only with no specific purpose	*That box contains the book.*

You'll find pencils in(side) the small blue can.	incidental, temporary, or circumstantial constraint/holder to prevent spillage from gravity	*The small blue can holds the pencils you're seeking.*
I poured soup in(to) the bowl.	same as above	*I enabled the bowl to hold soup*
We stayed in(side) due to the rain.	shelter, containment for purpose of protection	*We shelter ourselves from the rain.*
He placed the sword in(side or into) its sheath.	containment in fitted covering for purposes of protection	*He sheathed the sword.*
He stayed in(side) his room.	containment for purpose of privacy	*He shuttered himself.*
The tiger was kept in(side) a cage.	containment to prevent escape	*The tiger remained captured.*
There are high concentrations of lead in(side) that pottery.	ingredient, composite substance	*That pottery contains much lead.*
Microchips can be found in(side) any machine these days.	inherent or integral component	*These days, any machine incorporates microchips.*
I put fuel in the gas tank.	integral component having function to hold or contain other component	*I (re-)fueled the gas tank.*
We'll never know what's in(side) her head.	intangible containment	*We'll never know her thoughts.*
He has a tumor in(side) his pancreas.	enveloped to inaccessible depth by surrounding medium	*His pancreas "harbors" a tumor.*
He hammered a nail in(to) the wall.	fastening/connecting	*He fastened the nail to the wall with a hammer.*
The child tried putting the square block in(side or into) the round hole.	fitting together one object to another	*The child tried to fit the round hole and the square block together.*

This functional prioritization notwithstanding, Ithkuil is nevertheless able, if necessary, to describe true spatial relationships and orientations quite specifically. However, it does so in ways that are very unfamiliar in terms of Western grammar. These are described in the following section.

10.3.3 Absolute vs. Relative Spatial/Positional Coordinates

While Western languages are capable of describing the physical position and orientation of object in absolute terms (e.g., *My hometown is located at 93°41'36"W by 43°12'55"N*), it is not normal to do so in general parlance. Rather, Western spatial position and orientation is normally relative, i.e., described from the dynamic perspective of the two objects themselves or from the perspective of a third party observer (usually, but not exclusively, the speaker). Therefore, if I describe the position of objects in my backyard to you on the telephone, and you have never seen my backyard, phrases such as 'the swingset is against the wall,' 'the barbecue is sitting to my right,' 'the elm tree is behind the shed' and 'the rose bush is beyond the bird fountain' convey little information without first having to establish a common frame of reference based on where the speaker is positioned relative to the edges of the yard (in order to interpret what he means by 'beyond the fountain'), which way he is facing relative to the yard (in order to interpret what he means by 'to my right'), perhaps even the orientation of the shape of the yard relative to some external absolute system of orientation (e.g., the four cardinal directions N, S, E, W).

In such a relative scheme concepts such as 'to my right' change completely if I turn my body 180 degrees. Confusion also occurs when I say 'to the left of the chair.' Do I mean to the left side of the chair from my (the speaker's) perspective? Or do I mean to the left side of the chair from the perspective of someone sitting in the chair?

Ithkuil avoids such confusions by being based on an absolute coordinate system of spatial reference as opposed to a relative system (similar in nature to the absolute system used in navigation based on the four cardinal points.). Very few languages on Earth utilize such absolute systems to the exclusion of relative systems. (Examples include Guugu Yimidhirr, an Australian aboriginal language; Tzeltal, a Yucatec Mayan language; and Yurok, an Algonquian Indian language of Northern California). Ithkuil utilizes three different absolute coordinate schemes, each functioning within a different speech context. These coordinate systems establish a three-dimensional right-angled coordinate grid superimposed upon space, with the X-axis reckoned from a line perpendicular to the direction of gravity (which, for practical purposes, we may term "horizontal"), the Z-axis reckoned by a line corresponding to the direction of gravity (which may be termed the "vertical") and the all-important Y-axis (which differentiates a relative system from an absolute) derived from one of three points of reckoning depending on which coordinate scheme is being utilized. The three schemes are as follows:

1) **Solar-based system**. This is the standard Ithkuil system of reckoning. The line of the Y-axis runs parallel to the rising and setting points of the sun in mid-summer, with the vector oriented in the direction of the setting sun. Note that the alignment of this Y-axis relative to the X-axis is variable; i.e., the line connecting the rising and setting points of the sun merely designate the *direction* of the Y-axis, not it actual position. This is necessary so that descriptions of spatial relationships can be made using a "octant locator" system based on this grid, where any two objects can be made to lie within different octants relative to each other (this will be illustrated below).

Use of this solar-based reckoning system continues at nighttime and on overcast or rainy days, based on society's collective knowledge and/or recollection of landmarks indicating the rising and setting points of the sun. Use of this system even continues indoors if there exists a collective understanding of the orientation of the building/structure/room relative to the solar-based Y-axis (i.e., everyone in the room can still tell the orientation of the outdoor Y-axis, whether by sight through windows, or by noticing that the length-width ratios of the room are aligned with the outdoor Y-axis).

2) **Length vs. width of enclosed space or room**. In indoor situations where the orientation of the outdoor solar-based Y-axis is unknown (or cannot be readily determined on a continuous basis as new speakers enter the room), an arbitrary Y-axis is connoted by the length of the room in a direction away from whichever end of the room displays a visibly unique feature (e.g., the doorway, a window, an alcove, an imposing piece of furniture, a stage or dais, etc.), this symbolically substituting for the position of the rising sun. This is the coordinate system which would be employed in theaters, enclosed banquet halls without windows, and cellars without windows or ready access to outside orientation.

3) **Arbitrarily delineated axis based on local landmarks, objects, or persons**. This is similar to a Western relative system in which the speaker announces the orientation perspective being utilized. An Ithkuil speaker would consider this a highly unusual and "affected" method of reckoning. Nevertheless, it is possible to designate a personally defined reckoning system using words to designate the origin point and direction of the Y-axis vector, examples translatable by such phrases as 'based on a vector from me to that large window' or 'based on a vector between the shed and the big oak tree.' In fact, this is the purpose of the NAVIGATIVE case (see Sec. 4.7.6). The primary use for this system of reckoning is literary or narrative, such as when a speaker tells a story of another time and place, in which he/she wishes to describe spatial relationships solely within the context of the story in order to convey a mental map or image of the goings-on to his/her audience.

10.3.3.1 Describing Spatial Relationships between Two or More Objects. Using such a triaxial three-dimensional grid, Ithkuil then lexically divides up space into "octants", four quadrants to each given "hemisphere" of absolute space delineated by the three axes, for a total of eight octants.

+X / +Y / +Z = "right / ahead / above" = Octant 1 = Root: **-KST-**
+X / +Y / -Z = "right / ahead / below" = Octant 2 = Root: **-KŠT-**
+X / -Y / +Z = "right / behind / above" = Octant 3 = Root: **-PST-**
+X / -Y / -Z = "right / behind / below" = Octant 4 = Root: **-PŠT-**
-X / +Y / +Z = "left / ahead / above" = Octant 5 = Root: **-KSP-**

-X / +Y / -Z = “left / ahead / below” = Octant 6 = Root: **-KŠP-**
-X / -Y / +Z = “left / behind / above” = Octant 7 = Root: **-PSK-**
-X / -Y / -Z = “left / behind / below” = Octant 8 = Root: **-PŠK-**

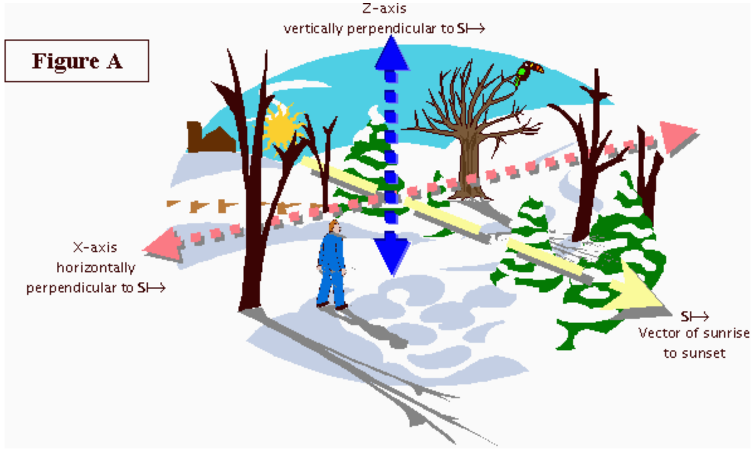
There are eighteen additional roots corresponding to the above where either one or two of the X/Y/Z values are zero, indicating concepts equivalent English phrases such as ‘neither above nor below,’ ‘straight down,’ ‘straight ahead,’ ‘directly behind,’ ‘straight up,’ ‘on the same plane as,’ etc.

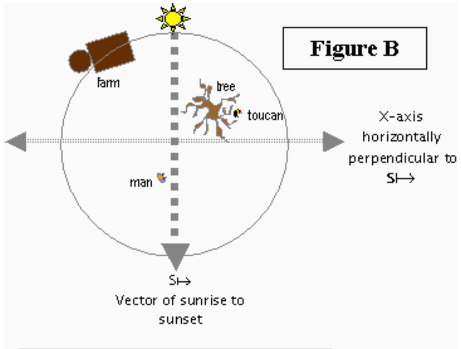
The SSD suffix in turn is used to specify translative movement from a starting octant specified by the stem toward an endpoint specified by the suffix, as follows:

Degree 1	moving toward Octant 1
Degree 2	moving toward Octant 2
Degree 3	moving toward Octant 3
Degree 4	moving toward Octant 4
Degree 5	moving toward a position between octants, (i.e., either X = 0, Y = 0, or Z = 0)
Degree 6	moving toward Octant 5
Degree 7	moving toward Octant 6
Degree 8	moving toward Octant 7
Degree 9	moving toward Octant 8

Additionally, the LCT suffix is used with these roots to identify the location of objects within a specific octant. The above octants are indicated in the illustrations below.

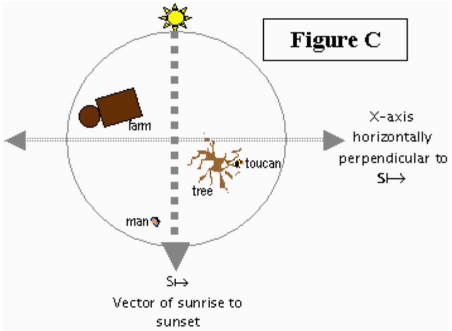
Because the lateral alignment (but not direction) of the solar-based X and Y-axes are variable (i.e., each can be slid laterally relative to the other axis), any two objects whose relative positions are to be described can be made to fall within two different octants, as illustrated in figures A, B, C and D below (Figure A represents the background context for which Figures B, C and D present varying positional frames of reference).





TOP VIEW LOOKING DOWN ALONG Z-AXIS WITH X- AND Y- AXES ALIGNED TO POSITIONALLY DIFFERENTIATE THE MAN AND THE TOUCAN:

- Man in Quadrant 2 (right/ahead/below)
- Toucan in Quadrant 7 (left/behind/above)



TOP VIEW LOOKING DOWN ALONG Z-AXIS WITH x AND Y AXES POSITIONED TO POSITIONALLY DIFFERENTIATE THE TOUCAN AND THE FARMHOUSE

- Toucan in Quadrant 5 (left/ahead/above)
- Farmhouse in Quadrant 4 (right/behind/below)

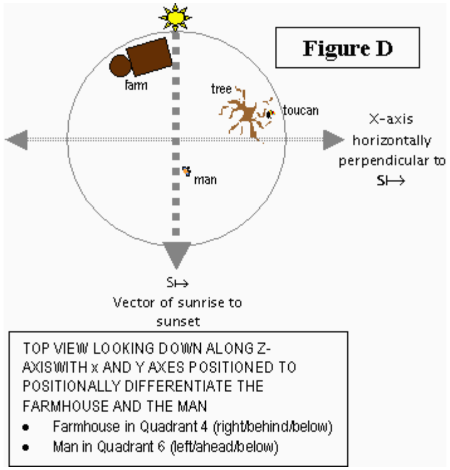


Figure D

TOP VIEW LOOKING DOWN ALONG Z-AXISWITH x AND Y AXES POSITIONED TO POSITIONALLY DIFFERENTIATE THE FARMHOUSE AND THE MAN

- Farmhouse in Quadrant 4 (right/behind/below)
- Man in Quadrant 6 (left/ahead/below)

It is the ability to "slide" the axes of this three-dimensional grid that allows Ithkuil to easily describe the relative position of objects in an absolute manner. Because the grid can be arranged so that any two objects each fall into different octants, a series of octant-to-octant relationships between the two objects can be lexified. Thus, each of the above roots has a stem which, in conjunction with a set of affixes, designates a spatial relationship between an object occupying that octant and a second object occupying any of the seven other octants. For the purpose of this analysis, we will call each of these octant-to-octant static relationships a "positional frame." (the leftover affixes refer to (1) 1st object in motion while 2nd object at rest, and (2) 2nd object in motion while first object at rest. Used to mark the participant nouns with motion sentences described below.)

Additionally, such a positional reference system allows a speaker to describe exactly the spatial relationships between two objects in motion relative to each other. This is done in Ithkuil by stating that two object are moving from positional frame A toward positional frame B. If one remembers that, by "positional frame" we mean a spatial relationship between two objects, not a specific location in space, it can be seen how such a simple formula easily describes the relative trajectories of two objects. An Ithkuil speaker is describing exactly how two objects are moving through space by stating in one short sentence the octant-to-octant relationship the two objects have to start with, and the octant-to-octant relationship they will have when the motion is ended. The root used to describe the motion indicates the nature of the motion in terms of its smoothness, speed, etc.

To insert a third party into a positional frame (such as describing where the speaker or addressee or third party is situated relative to the two objects described in the positional frame) a case-frame clause is added to the sentence in the concursive case ("while/during/at the time of") which states the positional frame between that third party and the FIRST party (unless the 2nd party is overtly specified). Example: "The dog and the ball M'd while the cat N'd," where M is the positional frame of the dog and ball and N is the positional frame between the cat and dog.

Based on the above, we can see just how exact Ithkuil can be in describing relative position between objects in an absolute manner. This is best illustrated by narrowly translating into English an Ithkuil sentence which describes a three-party positional situation.

Qi'êlafs âmmul âhiogwikstatükai íxi'asa açq^{h}u pštâ'at. LISTEN

STA-'woman'-CNR-NRM/DEL/M/CSL/UNI-MVT$_1$/5-IFL STA-'child'-ABS-NRM/DEL/M/CSL/UNI-IFL NNR-CNF-DYN- [incorp. stem: 'run']-**'Octant-1'**-NRM/DEL/U/CSL/UNI-**SSD$_1$/8**-IFL-EXS/ISR FRAMED-DYN-'see'-CNR-NRM/PRX/M/CSL/UNI-FML 1m/IND-ua/OBL STA-**'Octant-4'-LOC**-NRM/DEL/U/CSL/UNI-IFL

There is no way to translate this Ithkuil sentence into everyday English except via inadequate approximation, thus: *The woman stood still as the boy ran from ahead and above her, then past her, while I watched them from behind and below*. However, a more exact, narrow translation of this sentence, capturing all of the positional/orientational specificity of the original, would run as follows:

> *As the woman held still, the boy ran from a position above, ahead of, and to the right of her relative to the direction of the sunrise-to-sunset vector, a plane perpendicular to it, and the axis of gravity, toward a position still above, but behind and to the left of her relative to the same directional vector, perpendicular plane and gravitational axis, as I was watching them from below, behind, and to the right of her relative to the same vector, plane, and axis.*

10.4 LEXICAL GENERALIZATION

In a word-for-word comparison to a Eurocentric vocabulary, especially one as large as that of English, the Ithkuil lexicon appears very overgeneralized in many respects. At first impression, it appears that shades of meaning expressed by multiple words in English are expressed by only one root in Ithkuil. As we have seen repeatedly throughout this work, this is primarily due to the fact that shades of meaning for a single underlying cognitive concept are normally differentiated at the morphological level in Ithkuil, as opposed to the lexical. Nevertheless, there are several lexico-semantic areas where Ithkuil truly does generalize in comparison to Western languages. This occurs primarily where (1) Western vocabulary distinguishes separate lexemes for a redundant concept based on different participants to, practitioners of, or manifestations of that concept, and (2) where lexification is at an arbitrarily detailed or particularized level. These topics are discussed in detail in the following sections.

10.4.1 Consolidation of Unnecessary Distinctions

As an example of lexical generalization in Ithkuil (or over-lexicalization in English!), compare the following words for animal vocal sounds: *meow, bark, whinny, chirp, moo, bray*, etc. Each of these words mean merely to make one's species-specific inherent vocal sound. Ithkuil utilizes only a single stem for this concept (essentially meaning *vocal sound/vocalize* – from the same root which gives the stem for *(human) voice*), based on the logical assumption that, since cats can't bark, whinny or moo, and dogs can't meow, whinny or moo, there is no need to differentiate lexically the innate vocal sound being made by an animal if the animal making the sound is identified in the sentence. Of course, one might argue that English allows for metaphorical or similative application of such words, as in *The sergeant barked out orders to the platoon*, or *The baby squealed in delight*. Such constructions are perfectly captured in Ithkuil via the ESSIVE and ASSIMILATIVE cases, as in *He 'vocalized' the orders like a dog*, or *The baby 'vocalized' like a baby piglet from feeling delight,* or via the manipulation of Function, Incorporation and Format (see Sections 5.1 and 6.4).

Similar series of English words which reduce to a single stem in Ithkuil would be (1) *herd, flock, pride, gaggle*, etc.; (2) *hair, fur, fleece, coat*, etc.; (3) *skin, hide, pelt, pellicle, peel, rind, lambskin, leather, integument*, etc.

10.4.2 Translative Motion, Paths and Trajectories

By translative motion is meant the idea of an object moving (or being moved) from one location to another. English is particularly rich in its vocabulary to describe the various paths or trajectories of such an object, not only in regard to the "shape" or form of the path or trajectory, but also the means of initiating the movement. Thus we have terms such as *to toss, throw, pitch, hurl, fling, roll, run*, or *pass* a ball or other object. In reaching its destination, the object can *fly, float, wing, pass, arc, sail, plummet, drop, fall, thread, hop, leap,* *bounce, roll, zig-zag, slide, glide, slither*, or *jump* its way there.

As we have seen to be the case in other contexts, Ithkuil lexifies concepts of translative motion with a focus on the contexts of purpose and outcome, not on the "innate structure" of the event as an end in itself. Essentially, Ithkuil is less concerned with how the object gets there and is more concerned about why it's going there and whether it arrives. For example, look at the following two columns of English sentences :

I tossed it into the basket.	*It sailed into the basket.*
I flung it into the basket.	*It flew into the basket.*
I hurled it into the basket.	*It arced its way into the basket.*
I pitched it into the basket.	*It fell into the basket.*

The sentences in the lefthand column describes how I initiate the action while those in the righthand column describe how the object moves. In Ithkuil the lefthand column of sentences would normally all be translated by a single sentence narrowly translatable as *I made it end up inside the basket*, while the righthand column of sentences would all be translated by the exact same sentence minus the ERGATIVE personal referent *I*, thus: *It ended up inside the basket.*

So where are the words translating the range of descriptive nuance surrounding the means of sending it into the basket and the different trajectories it takes there? In normal Ithkuil speech, such distinctions would be considered irrelevant. This is because Ithkuil grammar questions all acts, conditions and events as to their underlying cognitive purpose. For the above sentences, Ithkuil views them as all having the same underlying purpose: to express that I have caused an object to pass from a state of being in my alienable possession to a state of being within the basket, by passing through the physical space between me and the basket. Therefore there is only one translation for the varying sentence pairs.

Before the reader begins to think that Ithkuil is incapable of distinguishing the shades of meaning present in the above examples, it should be noted that such distinctions can be easily rendered by additional affixes and words describing these concepts. For example, if it is truly necessary to indicate that the object was "flung" into the basket, Ithkuil can augment the sentence *I made it end up inside the basket* to include affixes which indicate use of the hand in a sudden recoil-like motion plus affixes indicating forceful and rapid arrival into the basket, the result being narrowly translatable as *Using my hand in a sudden, subtle, recoil-like motion I caused it to move quickly away and end up forcefully inside the basket.*

While this would more or less accurately capture the nuances of English "flung," Ithkuil first makes us stop and ask ourselves, why is it even necessary to describe the details of the trajectory and the force initiating it? After all, in a normal everyday contextual setting, if an English speaker were to use the verb "tossed" or "threw" or "placed" or "put" instead of "flung" in the above sentence, would his/her speaker be considered to have been given information any less sufficient or essential for understanding the message and its purpose? All of which again illustrates the dynamism of Ithkuil lexico-semantics: if a complex, highly detailed morphology already conveys a high degree of semantic and cognitive nuance, why belabor the obvious by reinforcing such nuances at the lexical level if the context and underlying cognitive purpose of the utterance does not require it? Thus the Ithkuil language not only captures levels of cognitive detail beyond the scope of Western languages, but it also allows the speaker to avoid having to provide such detail when it is inessential.

10.4.3 No Lexification of Specific Instances of Underlying Processes

In regard to over-lexification in English from a Ithkuil perspective, an example would be *limp*, as in 'to walk with a limp.' Ithkuil recognizes that, in observing a person walking with a limp, it is not the condition *per se* that is relevant, but rather the manner in which the condition causes the person to move, i.e. asymmetrically, irregularly, discontinuously in an unexpected way inconsistent with a "normal" or "standard" expectation of walking. Ithkuil speakers would consider English *limp* to represent an arbitrarily specific occurrence of an underlying state of translative movement. To a Ithkuil speaker, what is important is the way the person moves. The idea that a person continues to "have a limp" even when sleeping or sitting is considered absurd. What the person "continues to have" is an underlying physical injury, abnormality, disability, illness, or deformity which causes the person to move asymmetrically when walking. Therefore, instead of *He has a limp because of his war wound,* a Ithkuil speaker would say *He walks asymmetrically/irregularly because of his war wound*.

To illustrate this by analogy, consider a person who, when dancing to rock music, has a tendency to jerk his/her head to the left at the sound of the downbeat. Most English speakers would consider it ludicrous over-lexicalization to propose a verb "spreggle" meaning 'to jerk one's head to the left on the downbeat when dancing,' as in the hypothetical sentence *She spreggles to rock music*. Yet, from the Ithkuil standpoint, there is no difference in arbitrariness between the hypothetical "spreggle" and the actual word 'limp.'

Based on a combination of the above reasoning surrounding both animal vocal sounds and 'limp,' Ithkuil has no words for 'blind(ness),' 'deaf(ness),' 'mute(ness),' 'dementia,' or 'paralysis.' In Ithkuil, one simply says *He can't see, She can't hear, She can't speak, He can't think, He can't move*, or alternately *His faculty of sight* (or other sense or innate faculty) *doesn't function/no longer functions*. [Note: each of these sentences would, of course, employ appropriate morphological markers, case, voice, degrees of affixes, etc. to indicate the extent of functional loss, whether temporary or permanent, whether increasing or decreasing, whether externally caused or inherently developed, etc.]

10.5 LEXICAL DIFFERENTIATION

While we have examined the many ways in which the dynamism and logic of Ithkuil grammar eliminates whole swaths of equivalent English vocabulary, there are, nevertheless, many concepts where Ithkuil provides autonomous lexical roots and stems for which neither English nor other Western languages provide similar words and must resort to paraphrase in order to translate. Such concepts are particularly found in the realm of human emotions, social relationships, functional interrelationships between objects, philosophy, psychology, and sensory phenomena.

Underlying such differentiation is the idea that the Ithkuil language is meant to reflect in linguistic terms as close a representation of human cognition and pre-linguistic epistemological categorization as is possible in language without resorting to outright linguistic representations of pure mathematical logic. Since the inner mental life of the speaker is often clouded in vagueness or artificial "surface" categories once represented in spoken languages such as English and other Eurocentric languages, a language which is focused on representing that inner mental life will necessarily require many more words to describe that life than are commonly available in existing human languages.

10.6 COMPARISON TO WESTERN CATEGORIZATION

Western languages have several words and/or concepts for which there is no exactly corresponding equivalent in Ithkuil. These include the concepts embodied in the verb "to be" and "to have." Ithkuil has no way of truly expressing copula identification corresponding to "be" or "being", nor any direct translation of possession or ownership equivalent to "have." Essentially this is because Ithkuil grammar and lexico-semantics do not recognize inherent existential identification or inherent existential possession as true semantic functional categories or fundamental cognitive primitives.

10.6.1 Translating “To Be”

Ithkuil grammar inherently recognizes that the universe is, at any and all moments, and on all scales large and small, in a state of flux. The idea that any given entity can be permanently or innately identified as “being” some other entity is considered nonsensical. Ithkuil grammar has no way of clearly indicating any such notions as “being” or “to be,” as the universe is a universe of actions or states that are the results of actions. Even states, as such, are in flux and different from moment to moment, if only because the mere passage of time itself renders the “static” condition different than it was the moment before. Therefore, one cannot “be” anything else, or for that matter “be” anything at all. Rather, one “does” or “functions as” or “fulfills a role as” or “manifests itself as” something else. Fundamental to Ithkuil grammar are the notions of function and purpose, not mere description; results, not mere means; manifestation, not mere existence. This explains why there is no true distinction between nouns and verbs in Ithkuil, both being mere differences in functional roles played by any given formative concept whose underlying meaning is not inherently nominal or verbal, but rather a conceptual primitive waiting to be manifested as either (1) a representation of an action, process, or event, (i.e., a verb), or (2) as a concrete or abstract entity that is representative of, or embodies the underlying concept (i.e., a noun).

So, an Ithkuil speaker does not say *I am John, She is a cook, The leaf is green, Stan is ill,* or *Murder is wrong,* but rather *One calls me John, She cooks [for a living], The leaf [currently] manifests a green color, Stan feels ill [or carries a disease],* and *Murder controverts morality*.

10.6.2 Translating ‘To Have’

In regard to “have” or “having,” Ithkuil views the concept of possession as breaking down into more specific functional states and categories, each operating independently and having little relation to each other. The neutral, default way of expressing “to have” involves placing the possessor in the DATIVE case and utilizing the MANIFESTIVE function of the verb, so that the phrase *“I have a book”* translates more or less as *“There is a book to me.”*

10.6.3 ‘Yes,’ ‘No’ and Other Interjections

As there are no interjections in Ithkuil, there are no true equivalents to “yes” and “no” in Ithkuil. Nevertheless, Ithkuil grammar also allows for the use of Bias suffixes (see Sec. 5.11) to function as autonomous words to convey attitudes and emotional responses similarly to interjections in Western languages. This phenomenon has already been discussed in Section 8.4. Additionally, Section 8.3 described how affixual adjuncts may be used to convey information similarly to autonomous interjections.

10.6.4 Translating Metaphorically Structured Phrases

Ithkuil grammar recognizes that much of our understanding and expression of everyday experience is structured in terms of metaphor and metonymy (the latter being the reference to an entity by one of its attributes, associations or activities, as in ***The ham-and-cheese*** *wants fries with his order* or ***The White House*** *has its nose in our business*). Ithkuil allows for the overt designation of metaphorical concepts by several means. These include the REPRESENTATIONAL context, stem incorporation, the metonymic MET affix **-qt**, and the two part-whole PTF and PTG suffixes **-rs** and **-š**.

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Ithkuil: A Philosophical Design for a Hypothetical Language

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Chapter 11: The Writing System

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The Ithkuil script is a morpho-phonemic script, i.e., the individual characters do not simply convey phonetic (i.e., phonological) information, but also convey grammatical (i.e., morphological) information. Many of the characters are purely morphological in function and without any set phonological value, their specific phonological interpretation being up to the reader based on the flexiblility and options inherent in Ithkuil morpho-phonology.

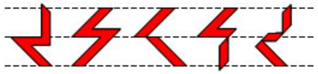
11.1 CHARACTER TYPES

There are four types of characters used in the Ithkuil Script: Primary Case/Aspect characters, Secondary Case/Aspect characters, Tertiary characters, and Consonantal characters. Additionally, there are symbols used for numbers (to be discussed in Chapter 12), separate rules for tranliterating non-Ithkuil words alphabetically, and a few punctuation symbols.

11.1.1 Primary Case/Aspect Markers

If present, the Case-Marker character is the first written character in a word. It is normally used to convey the case or case-frame of a formative, however, when the case or case-frame of the formative is the OBLIQUE, it can instead be used to convey one of the following: Aspect, Modality, Validation, or Valence. In addition to these categories, the character also shows the following categories: Configuration, Essence, Affiliation, Extension, Mood, and Version.

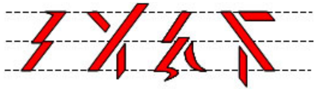
Primary Case/Aspect characters are recognizable by the absence of a top or bottom horizontal bar (as is found on all consonantal characters below), as well as a diagonal section of the character either below or above the horizontal mid-line. This diagonal section of the character will always change direction at the horizontal midline of the character. Examples:



11.1.2 Secondary Case/Aspect Markers

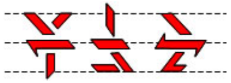
As stated above, Primary Case markers can be used to convey only one of the following categories at a time: Case, Aspect, Modality, Validation, or Valence. However, it is often necessary to be able to show more than one of these categories on a formative (i.e., the formative has non-default values for more than one of these categories). In such cases, secondary Case/Aspect Markers can be used. These characters are capable of showing Case, Aspect, and Modality simultaneously. Additionally, they can be used to show non-default values for the categories of Phase, Sanction, Designation, and Perspective.

Secondary Case/Aspect markers can be recognized by the presence of a diagonal bar extending the entire length of the character from the top-line (or even above the top-line) all the way to the bottom-line (or even below the bottom-line). This diagonal bar may be broken or modified in the middle by either a horizontal or vertical zig-zag, but will always continue in the same direction as before coming out of the break or zig-zag (unlike Primary Case/Aspect characters which have a change in direction beginning at the horizontal mid-line). Examples:



11.1.3 Tertiary Characters

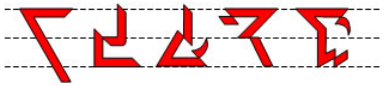
These characters are used, when necessary, to convey the combination of two different aspects, aspect plus modality, aspect plus valence, aspect plus validation, validation plus modality, valence plus modality, or valence plus validation. They are recognizable by having a horizontal bar at the mid-line of the character which is not connected to any vertical or diagonal bars above or below the horizontal bar. The ends of the horizontal bar may be modified by points facing upward or downward. Examples:



11.1.4 Consonantal Characters

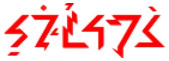
These characters are used to convey the consonantal root **Cr**, the incorporated root **Cx** (if present), and any **Vx-C** consonantal suffixes the formative may have. They are placed following any characters of Types 1, 2, or 3, in the order (Cx)-Cr-(VxC)-(VxC... etc.) If an incorporated root **Cx** is present, it is indicated by vertically inverting the Consonantal character in order to distinguish it from the following **Cr** character. The **Cr** character is also used to convey the categories of Function, Format, Context, Illocution, and Relation, while the **VxC** character conveys affix type and degree, as well as Bias.

Consonantal characters are recognizable by the presence of a horizontal bar either along the top-line or the bottom-line, the ends of which may be modified. Examples:

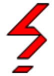
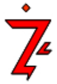
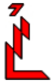
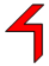
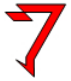
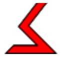


11.1.5 Example of the Script in Operation

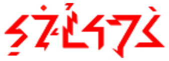
To illustrate further how a morpho-phonemic script operates, we can analyze the function of each character in the following Ithkuil sentence:



Igrawileiţrar oi aiglulôn.
DYN-‘eat food’-FAC-HOR-NRM/DEL/M/CSL/UNI-$NA1_1$/5-EXT_2/6-IFL PCL STA-‘illness’-IND-NRM/DEL/M/CSL/UNI-AGC_2/7-IFL
If only the physician wouldn’t eat his food in one gulp like that.

	The shape of this character indicates it is a primary character showing GENITIVE case or, alternately, PRECLUSIVE aspect. The bar below it indicates default PROCESSUAL version and also serves to indicate the character carries its alternate designation, i.e., PRECLUSIVE aspect. The lack of a superposed diacritic over the character indicates FACTUAL mood as well as the fact that the word is a formative and not a personal reference adjunct. The lack of a diacritic alongside the character indicates MONADIC perspective and INFORMAL designation. The lack of modifications to the top half of the character indicates NORMAL essence and UNIPLEX configuration. The lack of modifications to the bottom half of the character indicates DELIMITIVE extension and CONSOLIDATIVE affiliation.
	The shape of this character indicates it is a consonantal character, /g/; the bottom-half modification adds an /r/ giving the form /gr/. Its position following a primary case/aspect character shows it is a Cr root, **-GR-**. The lack of modication to the top-bar indicates Pattern 1, Stem 1, *‘food and drink; eat and drink one’s food’* as well as indicating UNFRAMED relation. The superposed dot diacritic indicates DYNAMIC function and default EXISTENTIAL context. The fact the character is not vertically inverted shows the word carries no incorporated stem or format. The absence of an underposed diacritic shows the stem is not triconsonantal or tetraconsonantal. The angular diacritic alongside the character indicates both HORTATIVE illocution and negative polarity (i.e., equivalent to carrying the NA11/5 suffix).
	The shape of this character indicates it is a consonantal character, /ţ/. Its position following a **Cr** root and the fact it is vertically inverted indicates it is a **V2C** derivational suffix. The modification of the bottom-half (actually the top- half due to the vertical inversion of the character) prefixes a consonantal /r/ giving the phonological form /rţ/ which is the EXT suffix. The angular diacritic over the character indicates the suffix is Degree 6. The lack of modifications to the top-half (actually bottom-half due to vertical inversion) indicates the formative carries no Bias.
	The shape of this character, its position following a consonantal suffix, the lack of top-half or bottom-half modifications, and the absence of any diacrtics all serve to indicate the start of a new word which is a formative (as opposed to a personal reference adjunct) and that it is a primary character showing INDUCIVE case, PROCESSUAL version, NORMAL essence, UNIPLEX configuration, DELIMITIVE extension, CONSOLIDATIVE affiliation, INFORMAL designation, and MONADIC perspective.
	The shape of this character indicates it is a consonantal character, /g/; the bottom-half modification adds an /l/ giving the form /gl/. Its position following a primary case/aspect character shows it is a **Cr** root, **-GL-**. The modication to the top-bar indicates Pattern 1, Stem 2, *‘illness/sickness’* as well as indicating UNFRAMED relation. The absence of a superposed diacritic indicates STATIVE function and default EXISTENTIAL context. The fact the character is not vertically inverted shows the word carries no incorporated stem or format. The absence of an underposed diacritic shows the stem is not triconsonantal or tetraconsonantal. The absence of a diacritic alongside indicates default ASSERTIVE illocution.
 	The shape of this character indicates it is a consonantal character, /n/. Its position following a Cr root, the fact it is vertically inverted, and the absence of any bottom-half (actually top-half due to vertical inversion) indicates it is a V2C derivational suffix, AGC. The grave accent-like diacritic over the character indicates the suffix is Degree 7. The lack of modifications to the top-half (actually bottom-half due to vertical inversion) indicates the formative carries no Bias.
	The absence of any secondary case/aspect character or placeholder characters within these formatives indicate default CONTEXTUAL phase and PROPOSITIONAL sanction on both formatives.

As can be seen from the above analysis, the only purely phonological information conveyed by the written form of this sentence consists of the consonantal groupings /gr/ /rţ/ /gl/ and /n/. The remainder conveys solely morphological/grammatical information by which the reader “re-constructs” the pronunciation based on his/her knowledge of Ithkuil morpho-syntax and the various optional ways in which it maps to the language’s morpho-phonology. The non-alphabetic nature of the script, along with the flexibility of Ithkuil morpho-phonology, allows the written form of this sentence to be read in many equivalent ways, such as:



Igrawileiţrar oi aiglulôn.

Oi eirţ igrawilar ôn aiglul.

Çtar-ryigraleiţrar aiglulôn.

If only the physician wouldn’t eat his food in one gulp like that.

11.2 DIRECTION OF WRITING

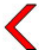
The Ithkuil script is written in a horizontal boustrophedon (i.e., zig-zag) manner, in which the first and every subsequent odd-numbered line of writing is written left-to-right, while the second and every subsequent even-numbered line of writing is written right-to-left. The characters within even-numbered lines written right-to-left retain their normal lateral orientation and are not laterally reversed (i.e., they are not written in a mirror-image manner). A small left-pointed mark like an arrow or left-pointing triangle is placed at the beginning of even-numbered lines (i.e., those written right-to-left) to remind the reader of the line’s orientation. The following paragraph shows by analogy how the script is written.

THE ITHKUIL SCRIPT IS WRITTEN IN A HORIZONTAL BOUSTROPHEDON
TNEUQESBUS YREVE DNA TSRIF EHT HCIHW NI ,RENNAM (GAZ-GIZ ,.E.I)
ODD-NUMBERED LINE OF WRITING IS WRITTEN LEFT-TO-RIGHT, WHILE
-TIRW FO ENIL DEREBMUN-NEVE TNEUQESBUS YREVE DNA DNOCES EHT
ING IS WRITTEN RIGHT-TO-LEFT.

11.3 PRESENTATION & ANALYSIS OF THE CHARACTER TYPES

The sub-sections below provide the details of the various characters and character-permutations associated with each character type.

11.3.1 Primary Case/Aspect Characters

The neutral default shape for a Primary Case/Aspect character is as follows: 

This shape can then be mutated into a variety of derivative shapes by means of changing the direction of the bars of the character at the mid-line point, extending the mid-line point horizontally, and changing the corner-like vertices to "offset" connections, as illustrated by the examples in Section 11.1.1 above:

The common recognizable elements in any Primary Case/Aspect character, and what distinguishes such characters from the other three character-types, are (1) the absence of a horizontal bar along the top-line and the bottom-line, (2) a diagnonal bar running from the mid-line to either the top-line or to the bottom-line or both, and (3) a change in the diagonal bar's (or bars') direction at the mid-line.

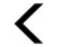
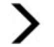
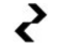
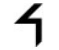
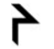
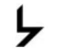
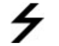
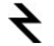
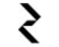
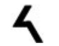
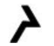
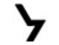
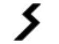
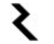
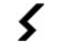
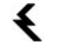
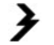
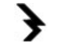
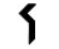
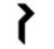
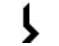
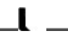
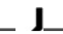
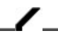
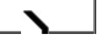
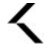
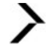
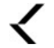
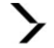
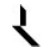
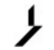
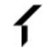
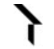
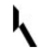
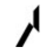
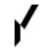
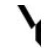
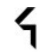
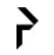
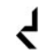
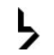
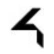
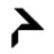
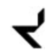
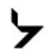
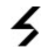
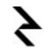
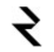
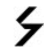
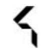
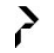
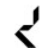
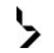
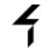
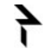
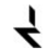
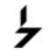
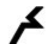
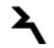
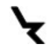
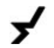
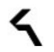
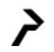
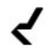
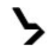
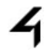
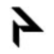
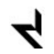
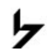
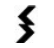
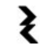
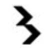
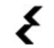
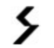
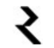
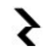
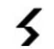
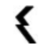
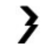
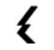
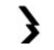
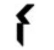
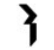
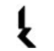
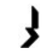
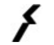
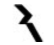
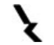
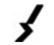
A Primary Case/Aspect character usually conveys the case of the formative (see Chapter 4), however, in the absence of case (e.g., as with a verb), or when the case is OBLIQUE, the character can convey one of the following other categories: Aspect, Modality, Valence, or Validation.

The various ways the character conveys these categories is described below.

(NOTE: If a formative is the first word in a sentence and carries no Aspect or Modality, and the other five categories are in their neutral/default modes (i.e., MNO valence, CNF validation, PRC version, CTX phase, and PPS sanction), then the Primary Aspect/Modality character will be missing, i.e., is not written.)

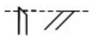
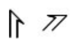
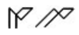
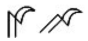
11.3.1.1 Case: The 96 cases are shown by the main body of the character – there are 24 basic forms corresponding to the first 24 cases. The next group of 24 cases utilizes the same 24 forms laterally reversed. The latter 48 cases utilize these same forms, vertically reversed. These forms are shown below (note that the vertical symmetricality of Forms 1 and 25, as well as Forms 3 and 27, require that Forms 49, 51, 73, and 75 have special forms):

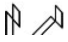
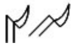
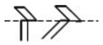
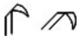
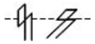
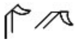
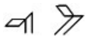
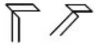
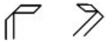
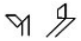
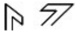
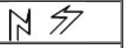
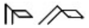
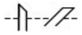
Table 35: Primary Case characters (Note that for the purposes of this table, the VOCATIVE case is shown in Position No. 48.)

1 OBL		25 PUR		49 EXC		73 CMP1A	
2 IND		26 CSD		50 AVR		74 CMP1B	
3 ABS		27 ESS		51 CMP		75 CMP1C	
4 ERG		28 ASI		52 SML		76 CMP1D	
5 EFF		29 FUN		53 ASS		77 CMP1E	
6 AFF		30 TFM		54 CNR		78 CMP1F	
7 DAT		31 REF		55 ACS		79 CMP1G	
8 INS		32 CLA		56 DFF		80 CMP1H	
9 ACT		33 CNV		57 PER		81 CMP2A	
10 DER		34 IDP		58 PRO		82 CMP2B	
11 SIT		35 BEN		59 PCV		83 CMP2C	
12 POS		36 TSP		60 PCR		84 CMP2D	
13 PRP		37 CMM		61 ELP		85 CMP2E	
14 GEN		38 COM		62 ALP		86 CMP2F	
15 ATT		39 CNJ		63 INP		87 CMP2G	
16 PDC		40 UTL		64 EPS		88 CMP2H	
17 ITP		41 ABE		65 PRL		89 CMP3A	
18 OGN		42 CVS		66 LIM		90 CMP3B	
19 PAR		43 COR		67 LOC		91 CMP3C	
20 CRS		44 DEP		68 ORI		92 CMP3D	
21 CPS		45 PVS		69 PSV		93 CMP3E	
22 PRD		46 PTL		70 ALL		94 CMP3F	
23 MED		47 CON		71 ABL		95 CMP3G	
24 APL		48 VOC		72 NAV		96 CMP3H	

11.3.1.2 Configuration and Essence: These two categories (see Sections 3.1 and 3.5) are shown via modifications to the top "end" of the Primary Case/Aspect character, as shown below:

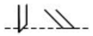
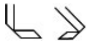
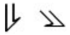
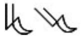
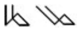
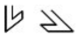
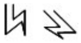
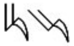
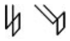
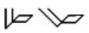
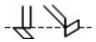
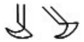
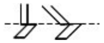
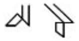
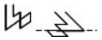
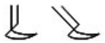
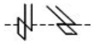
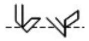
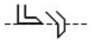
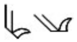
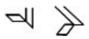
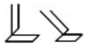
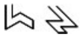
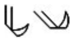
Table 36: Modifications to Primary Case/Aspect Characters Indicating Configuration & Essence

	NRM essence	RPV essence
1 UNI		
2 DPX		
3 DCT		

3 DCT		
4 AGG		
5 SEG		
6 CPN		
7 COH		
8 CST		
9 MLT		

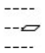
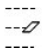
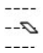
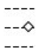
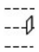
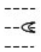
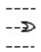
11.3.1.3 Extension and Affiliation: These two categories (see Sections 3.4 and 3.2) are shown via the bottom "end" of the Primary Case/Aspect character, as shown below:

Table 37: Modifications to Primary Case/Aspect Characters Indicating Extension & Affiliation

	AFFILIATION			
	CSL	ASO	VAR	COA
1 DEL				
2 PRX				
3 ICP				
4 TRM				
5 DPL				
6 GRA				

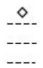
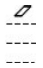
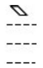
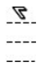
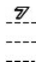
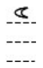
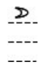
11.3.1.4 Perspective and Designation: These two categories (see Sections 3.3 and 3.7) are shown via a diacritic mark written alongside the mid-line of the Primary Case/Aspect character following the character in the direction the line is being written. These diacritics are shown below:

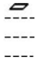
Table 38: Diacritics on Primary Case/Aspect Characters Indicating Perspective & Designation

	PERSPECTIVE			
	MONADIC	UNBOUNDED	NOMIC	ABSTRACT
INFORMAL				
FORMAL				

11.3.1.5 Mood: This category (see Section 5.2) is shown via a superposed diacritic above the Primary Case/Aspect character, as follows:

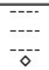
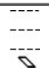
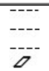
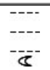
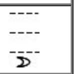
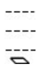
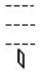
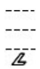
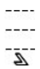
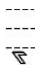
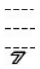
Table 39: Diacritics on Primary Case/Aspect Characters Indicating Mood

1 FAC	2 SUB	3 ASM	4 SPC	5 COU	6 HYP	7 IPL	8 ASC
							

Note: If instead of one of the above, the Primary Case/Aspect character carries a superposed horizontal bar diacritic,  this indicates that the word is a Personal Reference adjunct rather than a formative. In addition, high-toned personal reference adjuncts carry an underposed dot diacritic on the same Primary Case/Aspect character. (The presence of the superposed horizontal bar diacritic on the character prevents this underposed dot from being confused with Version marking explained in the section immediately below.)

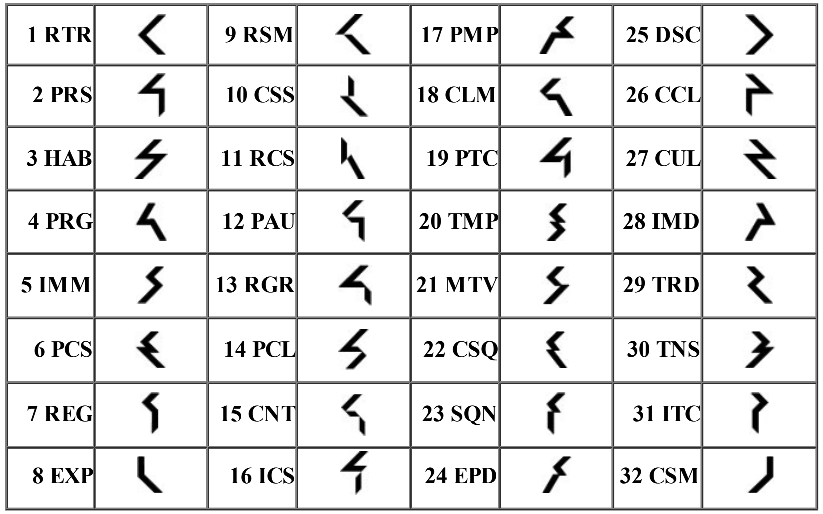
11.3.1.6 Version: This category (see Section 5.8) is shown via an underposed diacritic below the Primary Case/Aspect character. These diacritics come in two varieties, standard and alternate. Use of the alternate form of the diacritic indicates that the main body of the character conveys a category other than Case (explained below in Section 11.3.1.7).

Table 40: Diacritics on Primary Case/Aspect Characters Indicating Version

	1 PRC	2 CPT	3 INE	4 INC	5 PST	6 EFC
standard						
alternate						

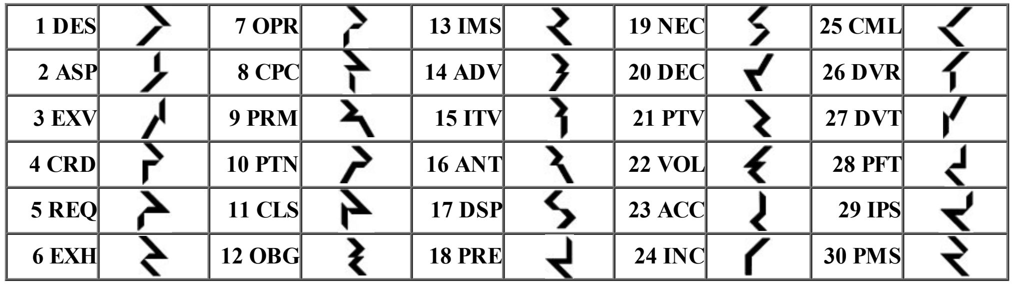
11.3.1.7 Aspect, Modality, Valence and Validation: If the underposed version diacritic shown on a Primary Case/Aspect character is in an alternate form (as shown in Table 40 above), then the main body of the character no longer conveys the category of Case, but rather one of the following four categories: Aspect, Modality, Valence, or Validation, depending on which character is displayed (see Sections 5.10, 6.1, 5.7, and 5.9 respectively, for explanations of these categories). The characters normally reserved for Case Nos. 1 through 32 instead indicate the 32 aspects. The characters normally reserved for Case Nos. 33 through 62 instead indicate the 30 modalities. The characters normally reserved for Case Nos. 63 through 76 instead indicate the fourteen valences, and the characters normally reserved for Case Nos. 77 through 90 instead indicate the fourteen validations. These values are shown in the following tables:

Table 41: Primary Aspect Characters
(when accompanied by alternate form of underposed Version diacritic)



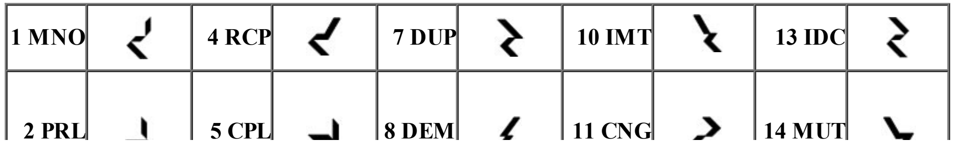
1 RTR		9 RSM		17 PMP		25 DSC	
2 PRS		10 CSS		18 CLM		26 CCL	
3 HAB		11 RCS		19 PTC		27 CUL	
4 PRG		12 PAU		20 TMP		28 IMD	
5 IMM		13 RGR		21 MTV		29 TRD	
6 PCS		14 PCL		22 CSQ		30 TNS	
7 REG		15 CNT		23 SQN		31 ITC	
8 EXP		16 ICS		24 EPD		32 CSM	

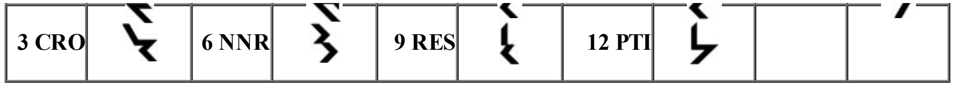
Table 42: Primary Modality Characters
(when accompanied by alternate form of underposed Version diacritic)



1 DES		7 OPR		13 IMS		19 NEC		25 CML	
2 ASP		8 CPC		14 ADV		20 DEC		26 DVR	
3 EXV		9 PRM		15 ITV		21 PTV		27 DVT	
4 CRD		10 PTN		16 ANT		22 VOL		28 PFT	
5 REQ		11 CLS		17 DSP		23 ACC		29 IPS	
6 EXH		12 OBG		18 PRE		24 INC		30 PMS	

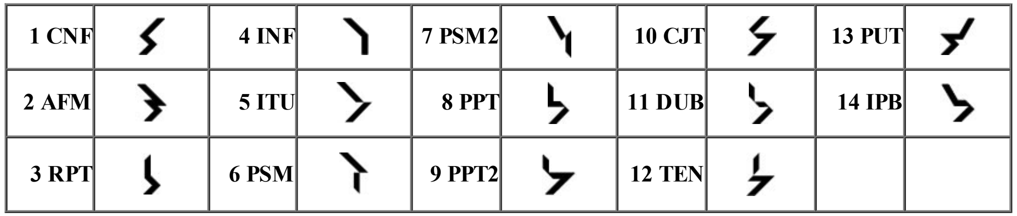
Table 43: Primary Valence Characters
(when accompanied by alternate form of underposed Version diacritic)





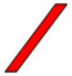
1 MNO		4 RCP		7 DUP		10 IMT		13 IDC	
2 PRL		5 CPL		8 DEM		11 CNG		14 MUT	
3 CRO		6 NNR		9 RES		12 PTI			

Table 44: Primary Validation Characters
(when accompanied by alternate form of underposed Version diacritic)



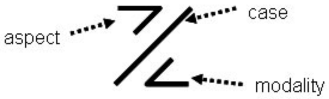
1 CNF		4 INF		7 PSM2		10 CJT		13 PUT	
2 AFM		5 ITU		8 PPT		11 DUB		14 IPB	
3 RPT		6 PSM		9 PPT2		12 TEN			

11.3.2 Secondary Case/Aspect Characters

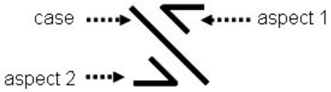
The neutral, default shape for a secondary case/aspect character is as follows: 

The common recognizable element in all secondary case/aspect characters, and what distinguish them from other character types is a diagonal bar extending from the top-line of the character (or even beyond the top-line) all the way to the bottom-line of the character (or even below the bottom-line of the character). This diagonal line can be interrupted at the mid-line by a horizontally offset juncture or be broken into two separate diagonal lines, but the continuation of the diagonal past the mid-line will always be in the same direction as on the other side of the mid-line. Examples were shown in Section 11.1.2 above.

A secondary case/aspect character normally conveys all of the following categories of information: Case, Aspect, Modality, Phase and Sanction. It can also indicate the categories of Designation and Perspective using the same laterally-placed diacritic as described in Section 11.3.1.4 above. The diagonal bar portion of the character which indicates case normally runs from the upper-right corner of the character to the lower-left corner. The upper-left portion of the character "above" the diagonal bar indicates Aspect, while the lower-right portion "below" the diagonal bar indicates Modality. Phase is indicated by a superposed diacritic above the character, while Sanction is indicated by an underposed diacritic below the character.

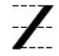
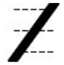
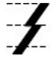
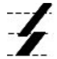
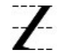
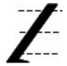
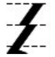
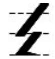
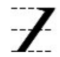
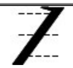
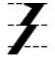
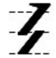
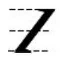
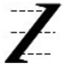
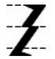
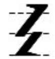
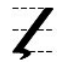
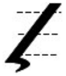
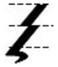
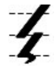
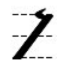
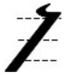
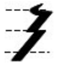
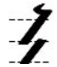
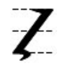
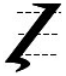
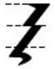
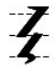
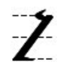
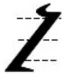
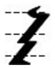
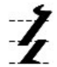
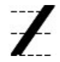
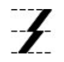
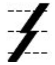
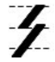
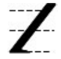
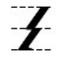
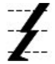
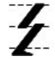
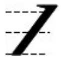
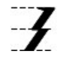
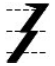
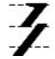
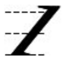
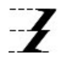
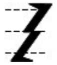
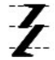
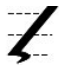
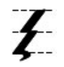
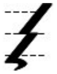
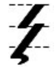
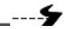
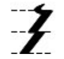
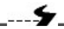
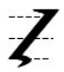
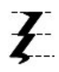
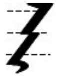
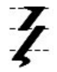
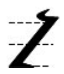
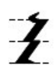
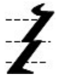
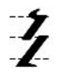
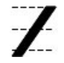
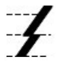
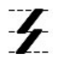
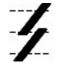
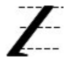
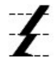
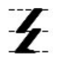
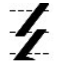
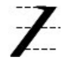
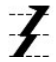
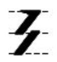
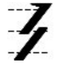
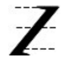
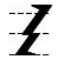
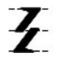
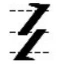
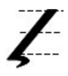
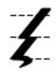
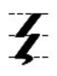
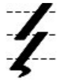
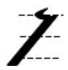
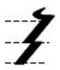
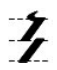
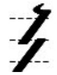
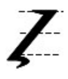
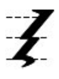
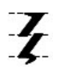
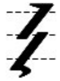
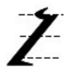
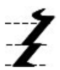
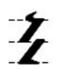
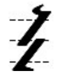


If the diagonal bar indicating case has its orientation reversed (i.e., made to run from upper-left to lower-right) then the section "below" the diagonal normally reserved for indicating Modality, will instead indicate a second aspect.



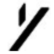
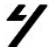
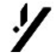
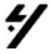
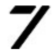
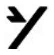
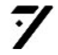
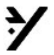
11.3.2.1 Case: The secondary case/aspect character indicates case via the diagonal bar portion of the character, as per the following table. The dotted horizontal lines represent the top-line, mid-line, and bottom-line of the line of writing, in order to illustrate which characters extend above the top-line or dip below the bottom-line.

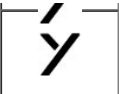
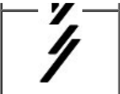
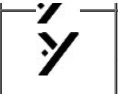
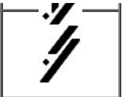
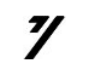
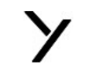
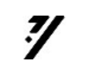
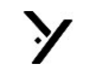
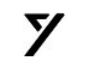
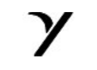
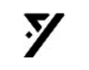
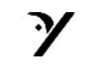
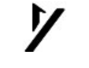
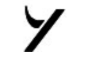
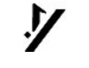
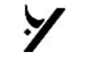
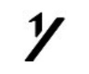
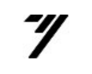
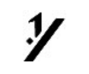
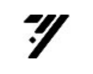
Table 45: Secondary Case Characters (Note that for the purposes of this table, the VOCATIVE case is shown in Position No. 48.)

1 OBL		25 PUR		49 EXC		73 CMP1A	
2 IND		26 CSD		50 AVR		74 CMP1B	
3 ABS		27 ESS		51 CMP		75 CMP1C	
4 ERG		28 ASI		52 SML		76 CMP1D	
5 EFF		29 FUN		53 ASS		77 CMP1E	
6 AFF		30 TFM		54 CNR		78 CMP1F	
7 DAT		31 REF		55 ACS		79 CMP1G	
8 INS		32 CLA		56 DFF		80 CMP1H	
9 ACT		33 CNV		57 PER		81 CMP2A	
10 DER		34 IDP		58 PRO		82 CMP2B	
11 SIT		35 BEN		59 PCV		83 CMP2C	
12 POS		36 TSP		60 PCR		84 CMP2D	
13 PRP		37 CMM		61 ELP		85 CMP2E	
14 GEN		38 COM		62 ALP		86 CMP2F	
15 ATT		39 CNJ		63 INP		87 CMP2G	
16 PDC		40 UTL		64 EPS		88 CMP2H	
17 ITP		41 ABE		65 PRL		89 CMP3A	
18 OGN		42 CVS		66 LIM		90 CMP3B	
19 PAR		43 COR		67 LOC		91 CMP3C	
20 CRS		44 DEP		68 ORI		92 CMP3D	
21 CPS		45 PVS		69 PSV		93 CMP3E	
22 PRD		46 PTL		70 ALL		94 CMP3F	
23 MED		47 CON		71 ABL		95 CMP3G	
24 APL		48 VOC		72 NAV		96 CMP3H	

11.3.2.2 Aspect: Aspect in a secondary case/aspect character is shown via the portion of the character "above" the diagonal bar. The forms below are the default forms when used in the upper-left portion of the character. For laterally reversed characters, these should be, in turn, laterally reversed, and placed in the upper-right portion of the character. When used to show a second aspect in laterally reversed characters, the form should be vertically inverted and placed in the lower-left portion of the character.

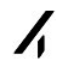
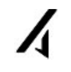
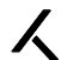
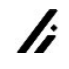
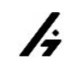
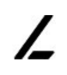
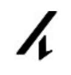
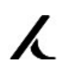
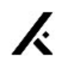
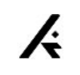
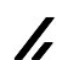
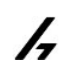
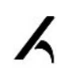
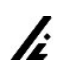
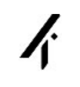
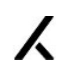
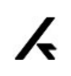
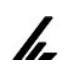
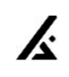
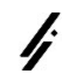
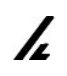
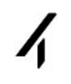
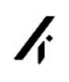
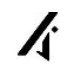
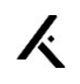
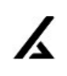
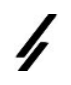
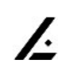
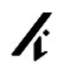
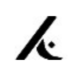
Table 46: Secondary Aspect Characters - shown with OBLIQUE case marking

1 RTR		9 RSM		17 PMP		25 DSC	
2 PRS		10 CSS		18 CLM		26 CCL	
3 HAB		11 RCS		19 PTC		27 CUL	

4 PRG		12 PAU		20 TMP		28 IMD	
5 IMM		13 RGR		21 MTV		29 TRD	
6 PCS		14 PCL		22 CSQ		30 TNS	
7 REG		15 CNT		23 SQN		31 ITC	
8 EXP		16 ICS		24 EPD		32 CSM	

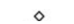
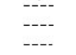
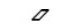
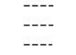
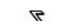
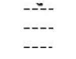
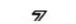
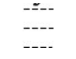
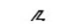
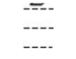
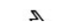
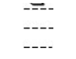
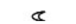
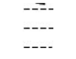
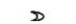
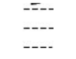
11.3.2.3 Modality: The thirty modalities are indicated in the portion of a secondary case/aspect character "below" the diagonal bar. The particular forms are the same as the first thirty aspect forms, only vertically inverted and laterally reversed, as shown in the following table.

Table 47: Secondary Modality Characters - shown with OBLIQUE case marking

1 DES		7 OPR		13 IMS		19 NEC		25 CML	
2 ASP		8 CPC		14 ADV		20 DEC		26 DVR	
3 EXV		9 PRM		15 ITV		21 PTV		27 DVT	
4 CRD		10 PTN		16 ANT		22 VOL		28 PFT	
5 REQ		11 CLS		17 DSP		23 ACC		29 IPS	
6 EXH		12 OBG		18 PRE		24 INC		30 PMS	

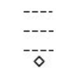
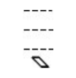
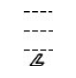
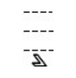
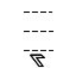
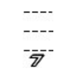
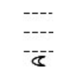
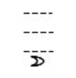
11.3.2.4 Phase: The nine phases (see Section 5.5) are shown via a diacritic mark placed over the secondary case/aspect character, as per the following:

Table 48: Phase Diacritics Placed Over Secondary Case/Aspect Characters

1 CTX	2 PCT	3 ITR	4 REP	5 ITM	6 RCT	7 FRE	8 FRG	9 FLC
	 	 	 	 	 	 	 	 

11.3.2.5 Sanction: The nine sanctions (see Section 5.6) are shown via a diacritic mark placed below the secondary case/aspect character, as per the following:

Table 49: Sanction Diacritics Placed Under Secondary Case/Aspect Characters

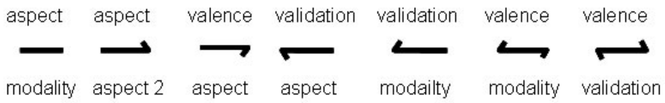
1 PPS	2 EPI	3 ALG	4 IPU	5 RFU	6 REB	7 THR	8 EXV	9 AXM
								

11.2.2.6 Placeholder Character for Phase/Sanction: If there is no secondary Case/Aspect character (or Tertiary character as described below) available by which to display the Phase and/or Sanction diacritics, then a special placeholder character is used, consisting of a single vertical bar extending from the top-line to the bottom-line.

11.3.3 Tertiary Characters

The third type of character is the tertiary character. The common recognizable element in all tertiary characters, and what distinguish them from other character types is a horizontal bar extending across the mid-line of the character, not connected to those portions of the character above or below the mid-line. The two ends of this horizontal bar may be modified. Examples were shown in Section 11.1.3 above.

A tertiary character normally conveys one of the following sets of grammtical information: Aspect 1 + Aspect 2, Aspect + Modality, Valence + Aspect, Validation + Aspect, Validation + Modality, Valence + Modality, or Valence + Validation. The particular set of information being conveyed is indicated by the "ends" of the horizontal mid-line bar of the character, as follows:



The forms utilized above and/or below the horizontal bar for showing aspect and modality are the same as those used for for secondary case/aspect characters (shown in Sections 11.3.2.2 and 11.3.2.3 above), vertically inverted and laterally reversed when used below the horizontal mid-line bar. Likewise, valence and validation are each shown by the first fourteen forms used for showing Aspect from Section Section 11.3.2.2 above, again vertically inverted and laterally reversed when used below the horizontal mid-line bar.

As with secondary case/aspect characters, the categories of Phase and Sanction can be displayed on a tertiary character via superposed and underposed diacritics respectively as per Tables 48 and 49 above. The categories of Designation and Perspective can likewise be shown on a tertiary character utilizing the same mid-line diacritics described previously in Section 11.3.1.4.

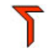
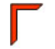
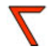
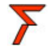
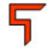
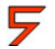
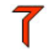
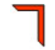
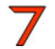
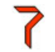
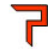
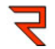
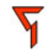
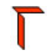
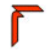
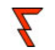
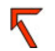
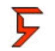
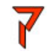
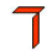
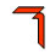
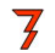
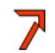
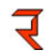
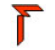
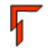
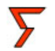
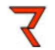
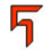
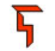
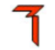
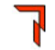
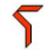
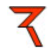
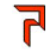
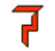
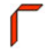
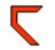
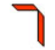
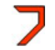
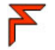
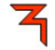
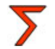
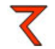
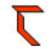
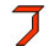
11.3.4 Consonantal Characters

Consonantal characters, the fourth type of character, are discernible by a horizontal bar along the top-line of the character, or when vertically inverted, along the bottom-line of the character. This horizontal bar will always be connected to the remaining portion of the character. The “ends” of the top-bar as well as the ends of the other bars making up the character are subject to numerous modifications and extensions. Examples of consonantal characters were shown in Section 11.1.4 above:

Consonantal characters will always be the last group of characters in a word, following any and all Type 1, 2, or 3 characters. They convey the following information: main root plus its Pattern, Stem and Relation; incorporated root (if present) plus its Pattern, Stem and Designation; Function; Format; Context; Illocution; Suffixes; and Bias. The manner in which these pieces of morphology are conveyed is described in the sub-sections below.

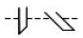
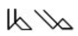
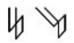
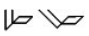
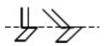
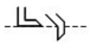
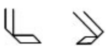
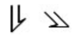
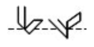
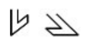
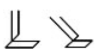
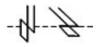
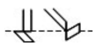
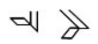
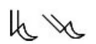
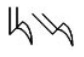
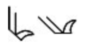
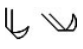
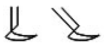
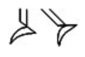
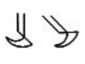
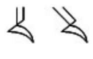
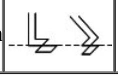
11.3.4.1 Main Root: If there is no incorporated root in the formative, then the first consonantal character in the word will be the main root consonant form, represented by a single consonant character. This character conveys the actual root Cr form (see Section 2.1), whether the root is one up to five consonants in length. The consonant forms are shown in the table below.

Table 50: Basic Consonantal Characters

p		t		k		q		c		č	
b		d		g		’		ż		j	
p’		t’		k’		q’		c’		č’	
p^h		t^h		k^h		q^h		c^h		$č^h$	
f		ţ		x		xh		s		š	
v		dh		h		ř		z		ž	
w		l		y		ļ		r		ç	
m		n		ň		tļ					

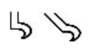
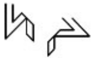
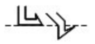
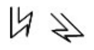
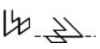
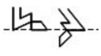
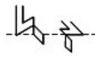
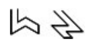
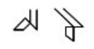
Various extensions added to the above forms allow for the prefixing of various consonants, e.g., t --> lt. These extensions which prefix consonants to existing consonant forms are shown below:

Table 51: Consonantal Character Extensions Indicating Consonant Prefixes

l+C		m+C		r+C		ļ+C		n+C	
s+C (z+C)		š+C (ž+C)		ň+C		z+C		ř+C	
ç+C		c+C (ż+C)		č+C / j+C		ž+C		k+C / (g+C)	
p+C (b+C)		q+C		t+C (d+C)		x+C		ţ+C / (dh+C)	
f+C (v+C)		xh+C			gemination				

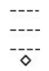
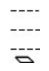
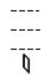
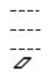
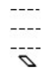
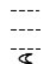
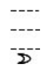
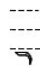
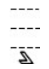
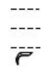
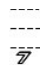
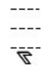
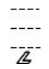
Additional extensions allow for the suffixing of various consonants, e.g., k —> tl, as shown below:

Table 52: Consonantal Character Extensions Indicating Consonant Suffixes

C+w		C+y		C+l		C+r		C+ř	
C+m		C+n		C+v		C+ň			

Various diacritics are also available for placement underneath the **Cr** character, used in conjunction with the above sets of extensions in order to indicate tri-consonantal stems and tetra-consonantal stems.

Table 53: Underposed Diacritics to Consonant Characters Indicating Consonant Affixes

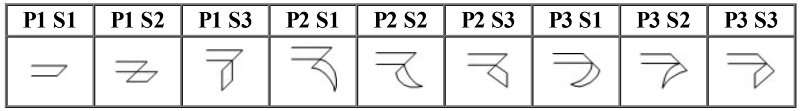
C+w 	C+y 	C+l 	C+r 	C+ř 	C+m 	C+n 
s+C 	z+C 	š+C 	ž+C 	f/v+C 	ţ/dh+C 	

If a tri-consonantal or tetra-consonantal stem cannot be unambiguously indicated using the above extensions and diacritics on a consonantal character, then the **Cr** root can be written using two characters, the second one being a placeholder character consisting of a vertical bar without a horizontal top-bar, running from the top-line to the bottom-line, to which the various extensions shown in Tables 51 and 52 are added.

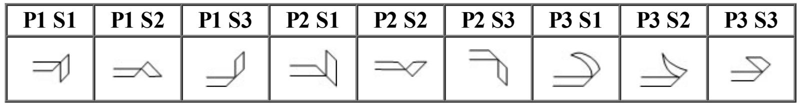
11.3.4.2 Pattern, Stem and Relation: These categories (see Sections 2.2 and 5.4) are shown via extensions or modifications made to the horizontal top-bar (or bottom-bar if the character is inverted) of the Cr consonantal character, as follows:

Tables 54a and 54b:
Consonantal Character Extensions Indicating Pattern, Stem, and Relation

UNFRAMED Relation

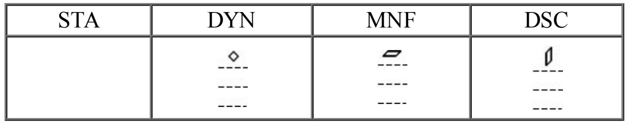


FRAMED Relation



11.3.4.3 Function: The category of Function (see Section 5.1) is shown by a superposed diacritic above the **Cr** consonantal character:

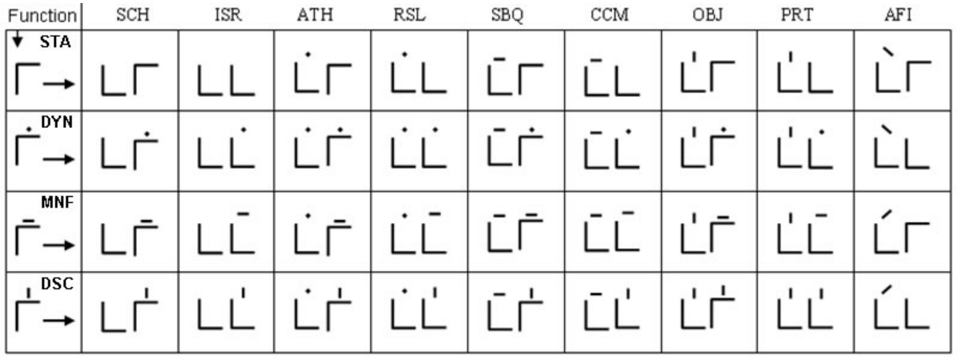
Table 55: Superposed Diacritics to Cr Character Indicating Function



11.3.4.4 Incorporated Root plus Pattern, Stem, and Designation: Incorporated roots are shown using the same consonatal characters as for the **Cr** main root in Section 11.3.4.1 above. The character representing the incorporated root is place immediately preceding the **Cr** main root character (i.e., so that it becomes the first Type 4 character in the word), and it is vertically inverted. Its pattern and stem are shown using the same extensions/modifications to its horizontal bar (now on the bottom-line rather than the top due to vertical inversion of the character), as shown above for the **Cr** character. Formal designation of the incorporated root is shown by using the FRAMED alternatives of the Pattern+Stem extensions/modifications.

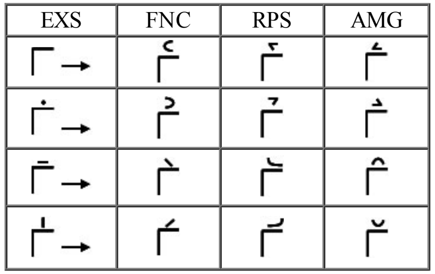
11.3.4.5 Format: Any formative containing an incorporated root must show the category of Format (see Section 6.4). This is shown by a combination of diacritics above both the incorporated root character and the **Cr** main root character, as well as vertical inversion of the **Cr** character. Since the **Cr** main root character may already carry diacritics indicating the formative's function, such diacritics will be subject to modification. The values in the table below show an inverted **'t'** consonantal character representing the incorporated root, followed by a standard **'t'** consonantal character representing the main root. The pattern of diacritics is shown on these two characters:

Table 56: Pattern of Diacritics and Inversion of Cr Character to Indicate Format



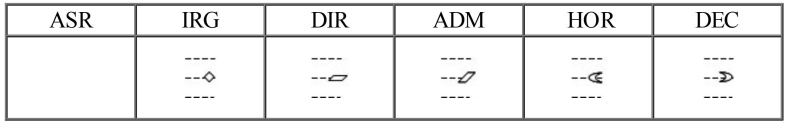
11.3.4.6 Context: The default EXS Context (see Section 3.6) is unmarked. The three other contexts are shown via a superposed diacritic over the **Cr** character (or underposed below the character if it is inverted). If the **Cr** character already has a diacritic showing Function or Function+Format, it is modified as per the table below:

Table 57: Modification of Function(+Format) Diacritics on Cr Character to Indicate Context



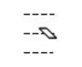
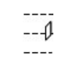
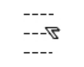
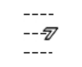
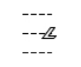
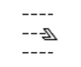
11.3.4.7 Illocution: This category (see Section 5.3) is shown via a diacritic mark alongside the **Cr** character at the mid-line following the character in the direction the particular line of writing is written.

Table 58: Illocution Diacritics on Cr Character



11.3.4.8 Negative Polarity: The Ithkuil script allows for a "shortcut" representation of the NA11/5 negation suffix, the most common method of negating a verb in Ithkuil. This shortcut is accomplished via a diacritic mark alongside the Cr character at the mid-line following the character in the direction of writing. The character is shown below in the first box of Table 59. Since this diacritic position is the same utilized for showing Illocution (see Table 58 above), the Illocution diacritics are modified to indicate this negation, as follows:

Table 59: Illocution Diacritics on Cr Character

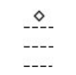
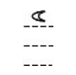
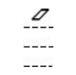
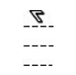
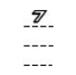
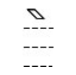
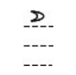
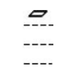
ASR	IRG	DIR	ADM	HOR	DEC
					

11.3.4.9 Suffixes: Derivational (Slot XI) Suffixes (see Chapter 7) are shown by additional Type 4 consonantal characters, placed following the **Cr** consonantal character. Each such character represents one **VxC** suffix, its formation of prefixed and suffixed consonants identical to the character formation principles previously described for the **Cr** consonantal character, utilizing the same extensions and modifications shown in Tables 51 and 52 above.

Suffix-Type: The default consonantal character is used to represent Type-1 suffixes. Types 2 and 3 are shown in the following ways: Type-2 suffixes are shown by vertically inverting the consonantal character. Type-3 suffixes are shown by an underposed dot diacritic beneath the consonantal character.

Suffix Degree: The nine suffix degrees are shown via superposed diacritics above the consonantal character (even if the character is vertically inverted to represent a Type-2 suffix). The diacritics are shown in the following table.

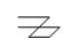
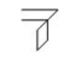
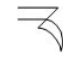
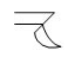
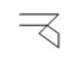
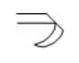
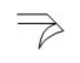
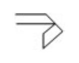
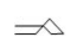
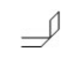
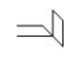
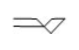
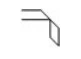
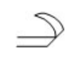
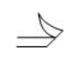
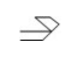
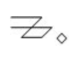
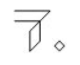
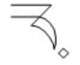
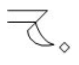
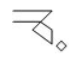
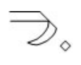
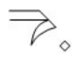
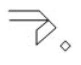
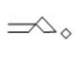
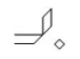
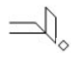
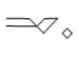
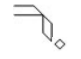
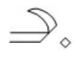
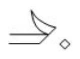
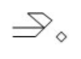
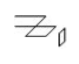
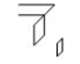
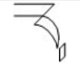
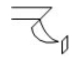
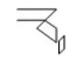
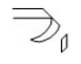
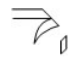
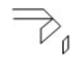
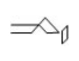
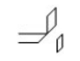
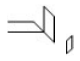
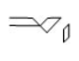
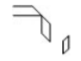
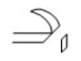
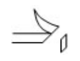
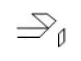
Table 60: Diacritics Representing Suffix Degree

Degree 1	Degree 2	Degree 3	Degree 4	Degree 5	Degree 6	Degree 7	Degree 8	Degree 9
				(none)				

11.3.4.10 Bias: The category of Bias (see Section 5.11) is shown by modification of the top-bar of a consonantal suffix character. If the formative does not carry a **VxC** suffix, then the modification is made to a special placeholder character consisting of a top-bar alone with no stem.

The modifications are mostly the same modifications made to **Cr** characters for showing Pattern, Stem, and Relation, as shown previously in Tables 54a and 54b, supplemented by additional underposed diacritics placed beneath the bottom-line of the character (shown next to the character in the following table). Note that for the last 16 biases whose representation utilizes a vertical-bar diacritic, if the placeholder top-bar character is used to represent these biases, then the character is laterally reversed rather than utilizing the vertical-bar diacritic.

Table 61: Modifications to Consonantal Suffix Characters to Show Bias

	ASU	HPB	COI	ACP	RAC	STU	CTV	DPV
								
Intensive Forms	ASU+	HPB+	COI+	ACP+	RAC+	STU+	CTV+	DPV+
								
	RVL	GRT	SOL	SEL	IRO	EXA	LTL	CRR
								
Intensive Forms	RVL+	GRA+	SOL+	SEL+	IRO+	EXA+	LTL+	CRR+
								
	EUP	SKP	CYN	CTP	DSM	IDG	SGS	PPV
								
Intensive Forms	EUP+	SKP+	CYN+	CTP+	DSM+	IDG+	SGS+	PPV+
								

11.4 WORD BOUNDARIES, PUNCTUATION, AND ALPHABETIC TRANSLITERATION

Because all written words begin with characters other than Type 4 (consonantal characters), while all words end with Type 4 characters, it is always possible to determine where new words begin in a line of Ithkuil writing, obviating the need for a blank space or other boundary between words. In turn, a blank space functions to indicate a sentence boundary. And because Ithkuil morphology already indicates within words themselves various attitudes, moods, and other information which are normally indicated supra-segmentally in Western languages (e.g., by tone or inflection of the voice, hyper-enunciation, etc.), symbols corresponding to exclamation points and question marks are likewise unnecessary. The Ithkuil equivalents to subordinate and relative clauses are likewise indicated morphologically, as are coordinative/serial lists of words, therefore there is no need for any equivalent to the comma.

The only "punctuation" symbols used are to show quotations of direct speech and phonetic transliteration (as when spelling non-Ithkuil words and names). These two sets of symbols are shown below. Note that the quotation marks are used only to indicate direct speech; they are not used as in English to offset a word for emphasis or special usage. The phonetic rendering marks indicate the word or phrase between the marks is to be pronounced phonetically (i.e., alphabetically).

insert quote here

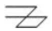
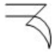
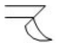
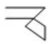
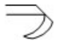
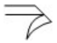
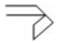
insert transliteration here

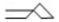
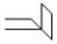
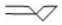
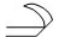
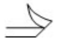
11.4.1 Alphabetic Transliteration

Proper names and other non-Ithkuil words, when transliterated into Ithkuil, are written alphabetically between the phonetic transliteration marks shown above. Consonants are written using the Type 4 consonant characters, utilizing the extensions from Tables 51 and 52 above (but not the diacritics from Table 53) to represent various consonant clusters or gemination. Transliteration is based on either a phonemic or phonetic representation of the non-Ithkuil word, without concern for any spelling conventions contained in the original/native script of the foreign word or name. Vowels are represented in the following ways:

Vowels: For vowels preceding or following a consonant (or consonant conjunct) the top-bar modifications normally used for representing Pattern, Stem, and Relation are used – the vowel thereby being represented as part of the consonant character. If there is no consonant in the syllable to carry the vowel, a placeholder symbol consisting of a top-bar alone is used. These top-bar modifications are shown in the following tables (note that the vowel-sounds are indicated using the International Phonetic Alphabet):

Table 62: Modifications to Consonant Characters to Transliterate Accompanying Vowel

modification:									
IPA value:	(none)	a	æ	ɑ	ɔ	o	ɛ	e	ɪ

modification:									
IPA value:	i	ə	ʊ	u	y	ʉ/ʏ	œ	ø	ɯ/ɨ

By default, the vowel is to be pronounced following the consonantal form. If instead the vowel is to be pronounced preceding the consonant, the character carries a superposed dot diacritic. If there are two vowels in a row and there is no consonant character to carry the vowel, a placeholder consonant character is used consisting of a lone top-bar. Syllabic stress is shown by a superposed horizontal bar diacritic; if a dot diacritic is already present above the character, it changes to a vertical bar diacritic for stressed syllables. Diphthongs and long vowels are indicated by diacritics placed alongside the character in the direction of writing. Diphthongs ending in an -i/-y semivowel are indicated with a dot, those ending in -u/-w by a small vertical bar, and long vowels by a small horizontal bar.

Tone: If necessary to transliterate a word carrying tone, the following underposed diacritics may be used under the consonant+vowel character corresponding to the syllable containing the toneme.

Table 63: Diacritics to Consonant Characters for Transliteration of Syllabic Tone

low	high	mid	rising	falling	fall-rise	rise-fall
---- ---- ---- 	---- ---- ---- 	---- ---- ---- 	---- ---- ---- 	---- ---- ---- 	---- ---- ---- 	---- ---- ----

Note on Placenames and Ethnonymns: In general, the Ithkuil names of real-world placenames and ethnonymns are the same as the native form to the extent that Ithkuil phonology allows and to the extent that such native terms can be distinguished. Otherwise, alternate names in common usage can be utilized. So, for example, the most technically correct Ithkuil name for China would be *îpal ⁻Čuň ˇkwo*, based on Ithkuil's closest available phonological equivalent to the Mandarin *Zhōngguó* (IPA [tʂʊ́ŋkwɔ̌]), although the name *îpal Čin*, based on the historically derived root (from both Persian and Sanskrit) would be acceptable as well.

For placenames with multiple native names from equally official languages (e.g., the four names of Switzerland in each of its four official languages), the Ithkuil phonological equivalent to any official name is acceptable. For names whose native ethnonymn is not common knowledge or not readily discoverable (e.g., the Andi people of Dagestan whose native ethnonymn is variously given as *Qwannal*, *Qwannab*, *Khivannal*), a name in common use can be used even if it is derived from a non-native source (e.g., the Russian-derived name "Andi").

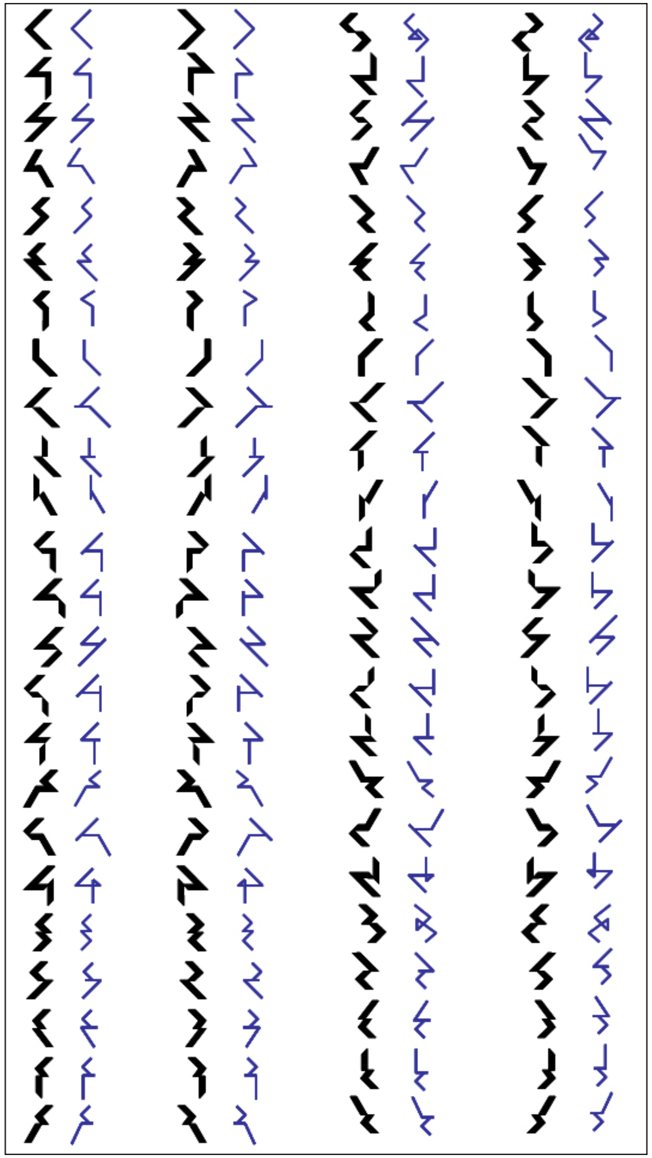
The author intends at some future point to add a section to the Lexicon on the official Ithkuil names of major non-Ithkuil placenames and ethnonymns.

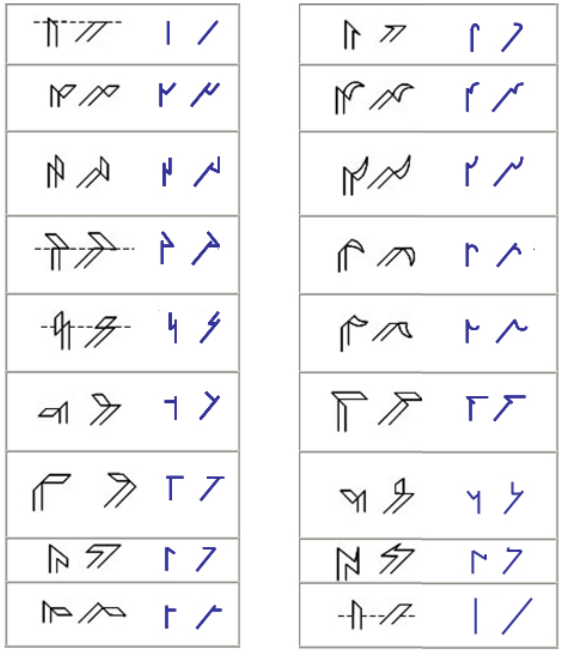
Language Names: The Ithkuil name of a non-Ithkuil language is given by the native ethnonymn of the people or their nation/placename with the addition of the SSD$_1$/5 suffix **-(a)k** added to the carrier root preceding the alphabetic name.

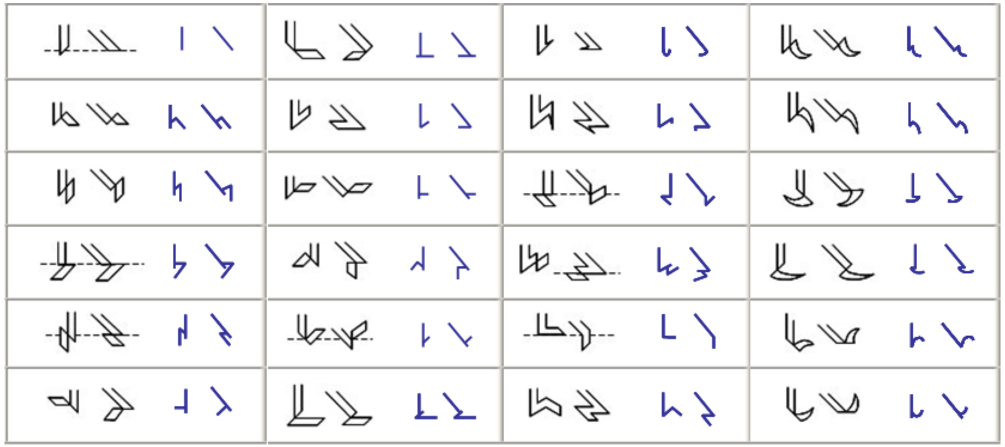
11.5 HANDWRITTEN FORMS OF THE CHARACTERS

The various charts below display the handwritten equivalents to the various character types, the extensions to top bars and bottom bars, diacritics, etc.

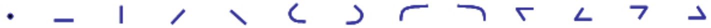
Primary Characters



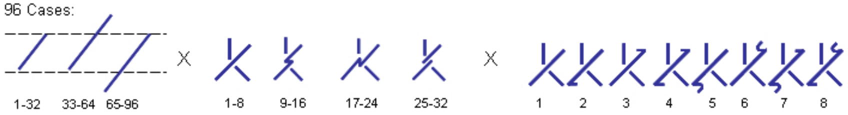




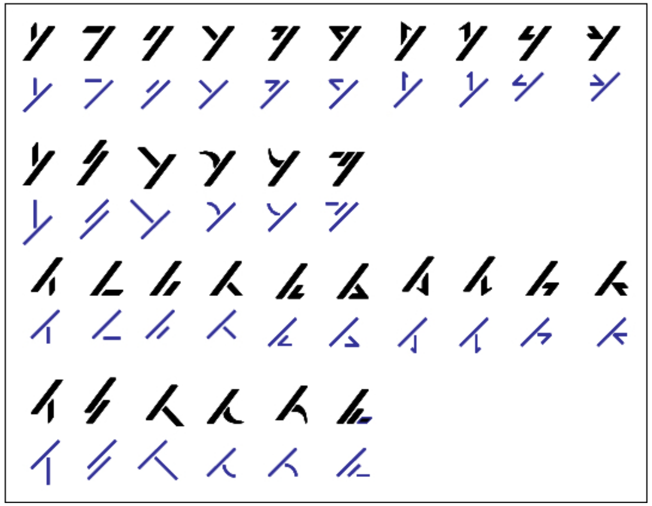
Diacritic Marks



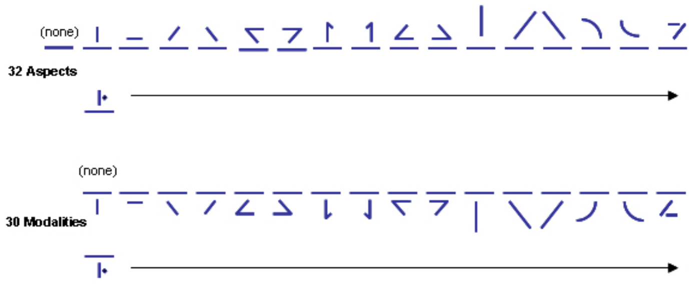
Secondary Case Characters



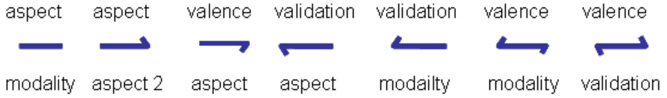
Secondary Aspect Characters



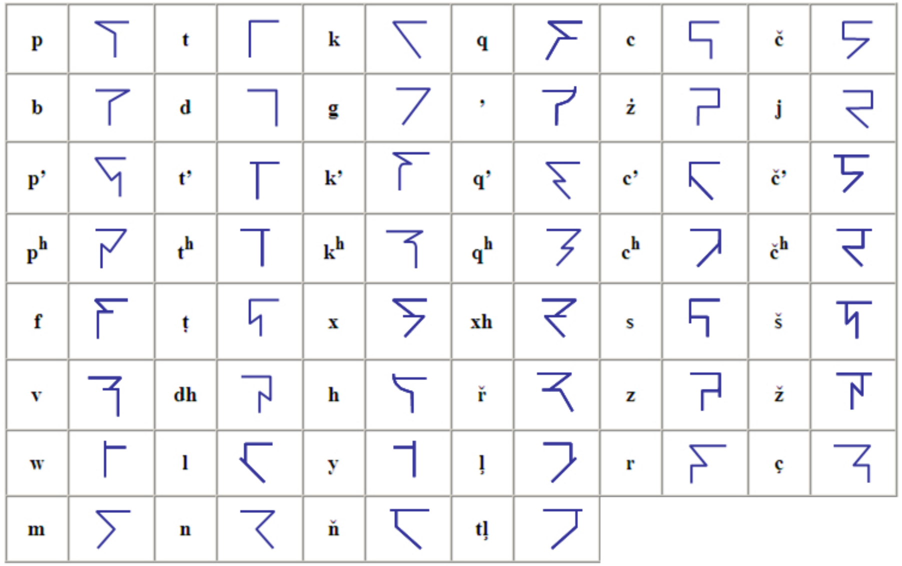
Tertiary Characters



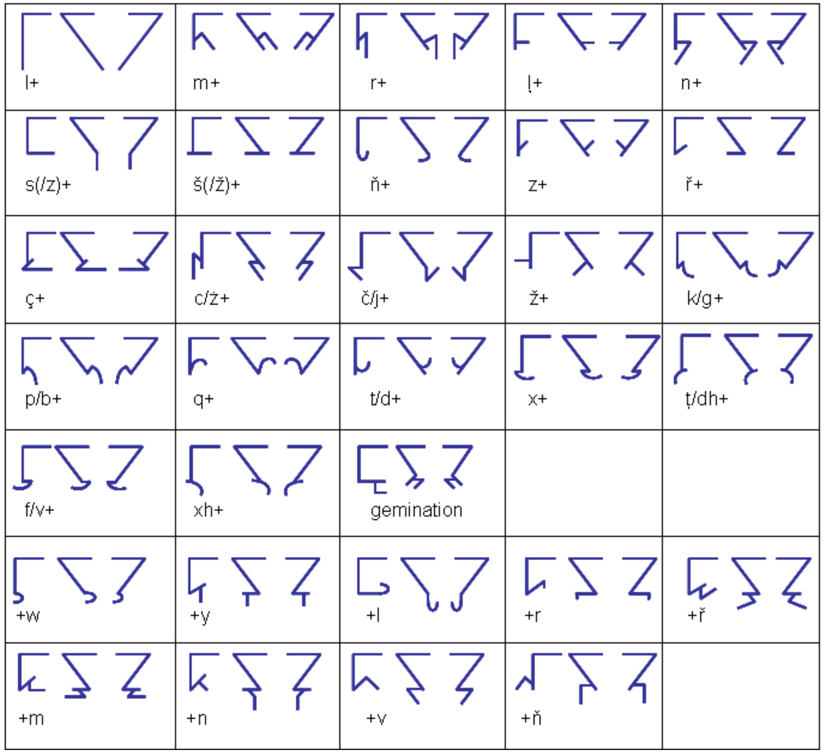
Category indicated above and below horizontal mid-bar dependent on form of the ends of the mid-bar:



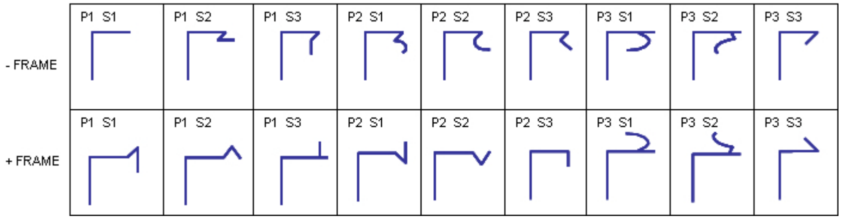
Consonantal Characters


p
t
k
q
c
č
b
d
g
’
ż
j
p’
t’
k’
q’
c’
č’
pʰ
tʰ
kʰ
qʰ
cʰ
čʰ
f
ţ
x
xh
s
š
v
dh
h
ř
z
ž
w
l
y
ļ
r
ç
m
n
ň
tļ

Consonantal Extensions (Shown on -t-, -k-, and -g- characters)


l+
m+
r+
ļ+
n+
s(/z)+
š(/ž)+
ň+
z+
ř+
ç+
c/ż+
č/j+
ž+
k/g+
p/b+
q+
t/d+
x+
ţ/dh+
f/v+
xh+
gemination
+w
+y
+l
+r
+ř
+m
+n
+v
+ň

PATTERN x STEM x RELATION – shown via top bar of primary consonantal character



11.6 THE ALTERNATIVE ORNAMENTAL SCRIPT

The now defunct previous revision of Ithkuil known as Ilaksh utilized an experimental two-dimensional, non-linear writing system of colorful “cartouche”-like containers and hexagonal glyphs used to fashion an abstract morphological “map” of an Ilaksh sentence. Now that the Ilaksh language has been withdrawn, it is the author’s intention to eventually adapt this writing system to Ithkuil, for use as an alternative, “ornamental” writing system for artistic purposes. When this adaptation is ready it will be placed in this section of the grammar. The graphic below illustrates a draft sample of what this writing system will look like.

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Texts

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Ithkuil: A Philosophical Design for a Hypothetical Language

Chapter 12: The Number System

12.1 Features of a Centesimal Number System
12.2 Semantic Designations for Numerical Stems
12.3 Expressing "Zero"
12.4 Writing Numerals
12.5 Using Numbers in Speech

The Ithkuil system of numbers and counting is distinct from Western languages in two fundamental ways: it is centesimal (base one hundred) as opposed to decimal (base ten), and the numbers themselves are full formatives (i.e., nouns and verbs), not adjectives. This has already been discussed briefly in Section 4.5.1 regarding the PARTITIVE case. This section will examine the numerical system in greater detail.

12.1 FEATURES OF A CENTESIMAL NUMBER SYSTEM

Being a centesimal system of enumeration, the numbers from zero to 100 are considered autonomous units represented by single stems and written using single autonomous symbols. Beginning with the number 101, numbers are referred to by the number of hundreds plus the number of units, just as a decimal system, beginning with the number 11, refers to the number of tens plus the number of units. However, where a decimal system then shifts to a unit referring to 100 once "10 tens" is reached, a centesimal system proceeds to the number 10,000 before establishing a new unit reference (i.e., "100 hundreds"). Thus the number 3254, which in a decimal system is 3 thousands — 2 hundreds — 5 tens — 4 ones, in a centesimal system becomes 32 hundreds—54 ones, and would be only two digits when written (the single character representing 32, and the single character representing 54). The details of writing Ithkuil numerals are given below in Section 12.5.

After 100, separate unit numbers and symbols are assigned to the square of 100 (i.e. ten thousand, that being "100 hundreds"), then the square of that number, 100^4 (100 million, i.e., 10,000 ten-thousands). The final unit is 100^8, that is, 10 quadrillion or 100 million hundred-millions, the last number for which Ithkuil assigns a separate root and symbol. After ten quadrillion, numbers are referred to as multiples of lower sets, similar to saying in English "one trillion quadrillion" instead of the equivalent "one octillion."

While the above may seem unwieldy or even arbitrary, it actually parallels Western base-ten numerals in terms of its systematization. For example, in a Western number like 456,321,777,123, each set of three numbers between the commas tells how many hundreds there are of a certain power of 1000 (i.e., there are 123 of 1000^0, 777 of 1000^1, 321 of 1000^2, and 456 of 1000^3, or in more common terms 123 ones, 777 thousands, 321 millions, 456 billions).

The same exact system holds for Ithkuil, except that the sets of numbers "between the commas" so to speak, is the number of ten-thousands, not thousands. Thus, if we were to rewrite the Western number 456,321,777,123 in such a system, it would be **4563,2177,7123** (i.e., 7123 of 10000^0, 2177 of 10000^1, and 4563 of 10000^2, that being 7123 ones, 2177 ten-thousands, and 4563 hundred-millions).

12.2 SEMANTIC DESIGNATIONS FOR NUMERICAL STEMS

The semantic roots for numbers in Ithkuil from 1 to 99 are based on roots for 1 through 10, to which the nine degrees of the Slot XI derivational affix **-Vk** are added. Each of the nine degrees of this suffix, when applied to one of the ten number-roots, corresponds to an additional multiple of ten. This is illustrated in Table 64 below.

Table 64: The SSD Affix with Numerals

Degree	Suffix	Meaning	Degree	Suffix	Meaning	Degree	Suffix	Meaning
1	**-ik**	stem + 10	4	**-îk / -uëk**	stem + 40	7	**-ok**	stem + 70
2	**-ök**	stem + 20	5	**-ak**	stem + 50	8	**-ük / -aek**	stem + 80
3	**-ek**	stem + 30	6	**-ûk / -iëk**	stem + 60	9	**-uk**	stem + 90

The addition of a particular degree of this affix to one of the ten indicates that the root number is added to that multiple of ten. For example, the stem **ksal** 'two,' plus the seventh degree affix **-Vk/7**, gives **ksalok** 'seventy-two.' Because there is no root corresponding to 'zero' (see Sec. 12.3 below), each multiple of ten is constructed using stem **mřal** 'ten' plus one of the above suffixes. Thus, the numbers 20, 30 and 40 are respectively **mřalik**, **mřalök** and **mřalek**, but the numbers 22, 32 and 42 are **ksalök**, **ksalek**, and **ksalîk**. This pattern only operates up to the nineties, as there is a separate autonomous root for 100, **-ň-**.

Since numbers are formatives in Ithkuil, not adjectives as in most Western languages, holistic stem No. 1 is a formative signifying a set containing a number of members corresponding to that particular root. Thus, the formative **ksal**, translatable as 'two,' actually means 'a set of two; a duo / to be a duo.' In turn, the two complementary derivatives of each stem denote its multiple and its fraction respectively. This is illustrated below for both Form I and II using the roots **-ks-**, TWO, and **-ns-**, meaning SEVEN:

For **-ks-**, TWO:

1. **ksal / aksál** *'a set of two, a duo; to be two in number'*

   COMPLEMENTARY DERIVATIVES:
   oksal / oksál: *'twice the number of something; to double, to multiply by two'*
   âksal / âksál: *'a half; to halve, to be or make half, to divide by or in two'*

2. **eksal / eksál** *'to be or make dual; having two uses or aspects; bi-; twofold'*

   COMPLEMENTARY DERIVATIVES:
   öksal / öksál: *'two times (i.e., iterations), twice; to be/do/make twice'*
   êksal / êksál: *'to be of or make into two parts; bifurcate(d)'*

3. **uksal / uksál** *'the second one in a sequence; to be or make second (in a sequence)'*

   COMPLEMENTARY DERIVATIVES:
   ûksal / ûksál: 'to the second power, squared; to square, raise to the 2nd power*'*
   ôksal / ôksál: *'to the negative second power, the inverse square; to divide by the square of'*

For **-ns-**, SEVEN:

1. **nsal / ansál** 'a set/group of seven, a septet; to be seven in number'

   COMPLEMENTARY DERIVATIVES:
   onsal / onsál: *'7 times the number of something; to multiply by 7; septuple'*
   ânsal / ânsál: *'a seventh; to be or make a 7th part of something, to divide by 7 or into 7 parts'*

2. **ensal / ensál** ‘to be or make seven-faceted; having 7 uses or aspects; septi-; sevenfold’

COMPLEMENTARY DERIVATIVES:
önsal / önsál: *‘7 times (i.e., iterations); to be/do/make 7 times’*
ênsal / ênsál: *‘to be of or make into 7 parts; separate(d) into 7 parts’*

3. **unsal / unsál** *‘the seventh one in a sequence; to be or make 7th (in a sequence)’*

COMPLEMENTARY DERIVATIVES:
ûnsal / ûnsál: *‘to the 7th power; to raise to the 7th power’*
ônsal / ônsál: *‘to the negative 7th power; to divide by the 7th power of’*

In addition to the above-described roots, there is the root **-ll-**, ONE/UNITY. As this root has no multiples, its semantic designations follow a unique pattern. NOTE: The INFORMAL versus FORMAL distinction in this root (i.e., Form I versus Form II of each stem) distinguishes between a focus on non-duplication/singularity for the INFORMAL, and indivisibility/unity for the FORMAL:

1. **llal / allál** *‘a single entity; to be one in number’*

COMPLEMENTARY DERIVATIVES:
ollal / ollál: *‘to be indivisible, whole, a single unit; unitary; to unify’*
âllal / âllál: *‘to be (an) individual, a distinct entity in itself; to individualize’*

2. **ellal / ellál** ‘a lone entity, something alone; an entity in solitude, something/someone isolated; be alone; to isolate; be in solitude’

COMPLEMENTARY DERIVATIVES:
öllal / öllál: *‘something/someone lonely; be or make lonely’*
êllal / êllál: *‘something/someone independent, self-sufficient, singular (i.e., without need of, connection to, or dependency on others); be or make independent, self-sufficient, singular’*

3. **ullal / ullál** ‘something/someone unique, the only one; to be or make unique’

COMPLEMENTARY DERIVATIVES:
ûllal / ûllál: *‘a sole entity, the only one available or able (in terms of sufficiency or applicability to the context)’*
ôllal / ôllál: *‘something/someone one-of-a-kind, unparalleled, without equal or peer (in terms of uniqueness of characteristics)’*

The Ithkuil numerical roots as described in the section above are as follows:

-ll-	**-ks-**	**-ţk-**	**-px-**	**-sţ-**	**-cq-**	**-ns-**	**-fy-**	**-xm-**	**-mř-**
one	*two*	*three*	*four*	*five*	*six*	*seven*	*eight*	*nine*	*ten*

-ň-	**-zm-**	**-pstw-**	**-čk^h-**
one hundred	*ten thousand*	*one hundred million*	*ten quadrillion*

12.3 EXPRESSING “ZERO”

Ithkuil has no word for “zero” nor is it conceptualized as a numerical category. Instead any appropriate formative may take the **PTW** suffix in first-degree **-iss** *‘no amount of’* or the **EXN** suffix in first-degree **-ib** *‘no…at all’* in terms of degree or extent to create negative expressions that convey the idea of an absence of a numerical entity or quantity. In many cases, simply the negative of whatever formative is under discussion may be used.

As for handling the concept of zero as a null placeholder when writing Ithkuil numbers, this is addressed in Section 12.4 below.

12.4 WRITING NUMERALS

Writing Ithkuil numerals is somewhat similar to writing numbers in Western languages (i.e., “Arabic” numerals), in that the interpretation of a number as a different power of 100 (analogous to interpreting single Arabic numerals as either ones, tens, hundreds, thousands, etc.) is based on its sequence within the entire number. However, there are two aspects of writing Ithkuil numbers that are quite different from Arabic numbers.:

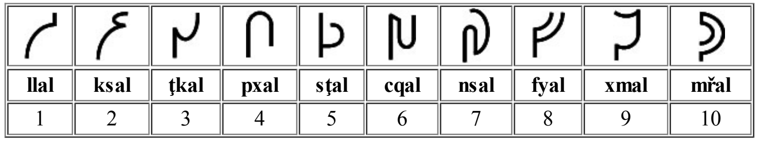
1. Ithkuil does not employ a symbol for zero. Instead, Ithkuil employs separate autonomous symbols for each power of 100 (100, 10,000, 100 million, etc.) each of which operates as the appropriate placeholder instead of zero. To illustrate what this means by analogy, pretend that “@” is an autonomous symbol for 27 (since Ithkuil numbers from 1 to 99 each have a separate symbol), “&” is a symbol for 100, “#” is a symbol for 10,000 and there is no symbol 0 (zero). The numbers 2700, 2705, 327, 22700 and 4,270,027 would then be written @&, @5, 3@, 2@&, and 4@#@ respectively. (NOTE: In actual practice, numbers which contain the “hundred” symbol, here represented as “&,” normally place a dot above or below the adjacent numeral and dispense with the &, indicating that the number so marked is to be multiplied by 100.

2. Since Ithkuil is a base-100 system, numbers do not become two digits in length until the hundreds, do not become three digits in length until the ten thousands, do not become four digits in length until the millions, etc.

One must also remember that in terms of left-to-right orientation, numbers follow the *boustrophedon* mode the same as the Ithkuil script (see Sec. 11.3.2). Similarly to Western languages, small non-compound numbers can be written using either their numerical symbols or written out in script (as in English “12” versus “twelve”).

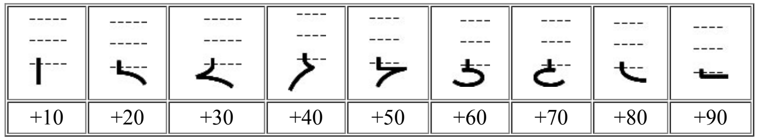
The following table gives the Ithkuil numerical symbols along with their morphological stems. The symbols for 11 through 99 consist of the symbols for 1 through 9 plus various extensions added to their lower left “trailing” line indicating the particular 10-group to be added.

Table 65: ITHKUIL NUMERICAL STEMS AND WRITTEN SYMBOLS

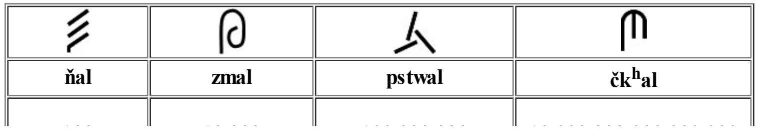


llal	**ksal**	**ţkal**	**pxal**	**sţal**	**cqal**	**nsal**	**fyal**	**xmal**	**mřal**
1	2	3	4	5	6	7	8	9	10

extensions:



+10	+20	+30	+40	+50	+60	+70	+80	+90



ňal	**zmal**	**pstwal**	**čk^{h}al**

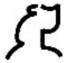
100	10 000	100 000 000	10 000 000 000 000 000

12.5 USING NUMBERS IN SPEECH

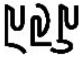
Spoken numbers are formed from the above stems using both the PARTITIVE and COMITATIVE cases, as well as using the coordinative affix **-Vň/1** (= **-iň**). The number of largest base units is shown by placing the base-unit term in the PARTITIVE. If this is then followed by another collection of smaller base units, that number of smaller base units is connected using the COMITATIVE case while the smaller base-unit term is again in the PARTITIVE. Single units (from 1 to 99) are connected by the coordinative affix when they are part of the number of hundreds or higher base-units.

It should be noted that when pronouncing numbers greater than 199, it is normal in Ithkuil to omit the word **ňial** (= the PARTITIVE of **ňal** 'one hundred') referring to the number of hundreds. This is equivalent to the custom in colloquial English of saying 'three twelve' for 'three hundred (and) twelve.' The difference is that in Ithkuil, this omission of the word for 'hundred' is the preferred option, the word **ňial** being used only in larger numbers for clarity's sake.

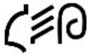
These principles are illustrated by the following examples:



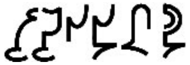
ksalîk (ňial) xmalök
literally: "42 (of hundreds) 29"
4229



cqalök zmial nseuluk (ňial) cqalûk
literally: "26 of ten-thousands with 97 (of hundreds) 66" = 26,9766
269,766

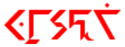


llalök ňial zmual
literally: "21 of hundred of ten-thousands"
21,000,000
[NOTE: **ňial** is required in this example]

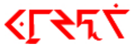


ksalok ňial xmalokiň apstwial ţkeul ňial ţkalakiň zmual pxeulek mřalûk
literally:
"72 of hundreds and 79 of hundred-millions with 3 of hundreds and 53 of ten-thousands with 34 60"
727,903,533,460

We have already seen that when numbers are used to indicate how many of a certain noun there are, the noun must appear in the PARTITIVE case, since the number itself is functioning as the "head" of the numerical expression (e.g., English "12 boxes" being constructed in Ithkuil as a "12-set of a box" or perhaps more appropriately a "box-dozen"). Another syntactical consequences of numbers being full formatives is when a number functions as a label or overt identifier, as in the English sentence *You'll find him in Room 216*. Such usage of numbers is not primarily sequential (which would involve the equivalent of "ordinal" numbers such as 'fourth,' 'twenty-sixth', etc. equivalent to stem No. 3 of each number root) but rather organizational (e.g., as in the three-dimensional array of room numbers in a hotel). Ithkuil handles such organizational labeling using either the COMPARATIVE case (see Sec. 4.5.32) or the ESSIVE case (see Sec. 4.5.9) depending respectively on whether the enumeration of the noun in question is to distinguish it from other enumerated nouns versus merely identifying the noun by a numerical name. Examples:



açtál ksou'lik
'room'-OBL 'twelve'-CMP
'the room marked "12"' **OR** *'Room 12'* **OR** *'Room No. 12'* [i.e., as opposed to being some other room]



açtál ksealik
'room'-OBL 'twelve'-ESS
'the room marked "12"' **OR** *'Room 12'* **OR** *'Room No. 12'* [identifying reference only]

Lastly, when numbers comprising multiple number-stems are declined for case, configuration, extension, etc., rather than writing out the entire number "long-hand," the number symbol is used, preceded by the carrier stem ***ep-*** (see Sec. 9.3) which carries the appropriate declensions. This use of the carrier stem applies even to single-stemmed numbers when writing, in order to allow use of the number symbol instead of writing it out. In such cases involving single-stemmed numbers, the carrier stem is not pronounced (rather, the numerical stem bears the pronounced declensions); it is there only as a written indicator of the morphological declensions/derivations to be applied to the number stem.

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